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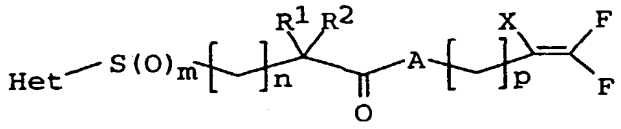
(54) Title: PESTICIDAL FLUOROALKENE DERIVATIVES



(I)

(57) **Abstract:** Pesticidal fluoroalkene derivatives (I) wherein A is oxygen, NR^a; R^a is hydrogen; optionally halogenated alkyl, alkenyl, alkynyl; X is hydrogen, halogen; optionally halogenated alkyl or phenyl; R^1,R^2 are hydrogen, halogen, hydroxyl, cyano, nitro, mercapto, amino; alkyl, alkenyl, alkynyl, alkoxy, alkenyloxy, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, alkylcarbonyloxy, optionally halogenated or substituted by 1 to 3 R^b groups: R^b is cyano, nitro, halogen, hydroxy, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl; optionally halogenated alkyl, haloalkyl, alkenyl, alkenyloxy, alkynyl, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkoxysulfonyl, alkylsulfonyloxy, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl, dialkylaminothiocarbonyl, alkylenedioxy or cycloalkyl; Het is a monocyclic or bicyclic 3- to 10-membered heteroaromatic ring system containing 1 to 5 heteroatoms selected from oxygen, sulfur and nitrogen, optionally halogenated or substituted by 1 to 4 R^c groups: R^c is R^b, alkoxyalkyl, alkylsulfinyl, alkylaminosulfonyl, di-alkylaminosulfonyl, alkylcarbonylamino, optionally substituted by halogen or 1 to 3 cyano, hydroxy, mercapto, amino, C1-C6-alkylthio, C1-C6-alkylamino, di-C1-C6-alkylamino, C1-C6-alkoxycarbonyl, C1-C6-alkylcarbonyloxy or nitro groups; cycloalkyl, cycloalkoxy, saturated or partially unsaturated heterocyclyl, heterocyclyloxy, aryl, aryloxy, arylthio, arylalkoxy, arylalkyl, hetaryl, hetaryloxy, hetarylthio, optionally substituted; m is 0-2; n is 0-3; p is 0-6, methods for the preparation of compounds I, compositions and methods comprising the compounds and compositions for the control of nematodes, insects, arachnids, harmful fungi and unwanted plants, and for treating, controlling, preventing and protecting warm-blodded animals, fish and humans against infestation and infection by helminths, arachnids and arthropod endo- and ectoparasites.

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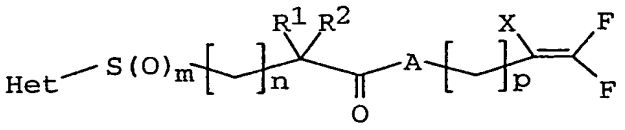
Pesticidal Fluoroalkene Derivatives

Description

The present invention relates to pesticidal fluoroalkene derivatives of formula I



(I),

wherein the substituents and the indices have the following meanings:

A oxygen or NR^a;

R^a hydrogen; C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, wherein the carbon atoms may be partially or fully halogenated;

X hydrogen, halogen; C_1-C_6-alkyl or phenyl wherein the alkyl and phenyl groups may be partially or fully halogenated;

R^1,R^2 each independently hydrogen, halogen, hydroxyl, cyano, nitro, mercapto, amino; C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_1-C_6-alkylthio, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyloxy, wherein the aliphatic moieties in these substituents are unsubstituted, partially or fully halogenated or substituted by 1 to 3 substituents, each independently selected from R^b:

R^b cyano, nitro, halogen, hydroxy, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl, alkyl, haloalkyl, alkenyl, alkenyloxy, alkynyl, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkoxysulfonyl, alkylsulfonyloxy, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl, dialkylaminothiocarbonyl, alkylenedioxy or cycloalkyl, wherein the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals contain 2 to 6 carbon atoms, and wherein the carbon atoms in these groups may be partially or fully halogenated;

Het a monocyclic or bicyclic 3- to 10-membered heteroaromatic ring system containing 1 to 5 heteroatoms selected from oxygen, sulfur and nitrogen, unsubstituted, partially or fully halogenated or substituted by 1 to 4 substituents, each independently selected from R^c:

R^c R^b, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkylsulfinyl, C_1-C_6-alkylaminosulfonyl, di-C_1-C_6-alkylaminosulfonyl, C_1-C_6-alkylcarbonylamino, wherein the last mentioned 5 carbon chains and those defined under R^b are unsubstituted, partially or fully halogenated or substituted by from 1 to 3 cyano, hydroxy, mercapto, amino, C_1-C_6-alkylthio, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyloxy or nitro groups;

cycloalkyl, cycloalkoxy, saturated or partially unsaturated heterocyclyl, heterocyclyloxy, wherein the cyclic systems contain 3 to 10 ring members, and the carbon atoms in the heterocycles may be substituted by 1 to 4 heteroatoms selected from nitrogen, sulfur and oxygen,

aryl, aryloxy, arylthio, aryl-C_1-C_6-alkoxy, aryl-C_1-C_6-alkyl, wherein the mono- or bicyclic ring systems contain 5 to 10 ring members,

hetaryl, hetaryloxy, hetarylthio, wherein the mono- or bicyclic ring systems contain 5 to 10 ring members wherein 1 to 3 carbon atoms may be substituted by heteroatoms selected from nitrogen, sulfur and oxygen,

and wherein the cyclic, aromatic and heteroaromatic systems may be partially or fully halogenated or may be substituted by from 1 to 3 groups selected from halogen, cyano, nitro, hydroxy; C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, C_1-C_6-alkylamino, C_1-C_6-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, di-C_1-C_6-alkylamino, C_2-C_6-alkenyl, C_2-C_6-alkenyloxy and C_2-C_6-alkynyl, wherein the carbon atoms of these substituents may be partially or fully halogenated;

m 0, 1 or 2;
n 0, 1, 2, or 3;
p 0, 1, 2, 3, 4, 5, or 6.

Furthermore, the present invention relates to processes for the preparation of compounds of formula I, compositions containing them and their use for the control of pests such as nematodes,

insects, arachnids, harmful fungi and unwanted plants, and the protection of plants from those pests as well as their use for treating, controlling, preventing and protecting warm-blooded animals, fish and humans against infestation and infection by helminths, arachnids and arthropod endo- and ectoparasites.

In WO-A 86/07590, nematicidal halosubstituted alkene derivatives are disclosed, some of which are substituted by a carbonyloxy group substituted by dihydrothiazolylthiomethylene.

The compounds of formula I differ from the compounds known from WO-A 86/07590 in that they are substituted by aromatic heterocyclic substituents.

In WO 97/08130, pesticidal 4,4-difluoro-3-butenylester derivatives and 4,4-difluoro-3-halogen-3-butenylester derivatives are described some of which carry a hetarylthioalkyl substituent on the carbonyl group.

Contrary to the compounds disclosed in WO-A 97/08130, in compounds of formula I a hetaryl moiety is bonded to the carbonylalkyl backbone via a sulfur atom.

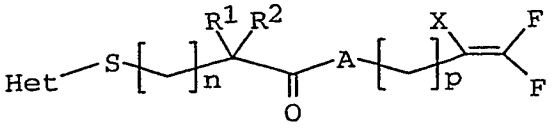
Furthermore, EP-A 1000946 teachers 2-(substituted thio)thiazolo-[4,5-b]pyridine compounds which may bear a haloalkenyl-oxycarbonyl-alkylthio radical as the substituting thio group.

However, the pesticidal activity of the compounds known from the above literature in many cases is unsatisfactory.

It is an object of the present invention to provide compounds having improved nematicidal, insecticidal and acaricidal activity. It is also an object to provide compounds for controlling harmful fungi, unwanted plants and parasites.

We have found that this object is achieved by the fluoroalkene derivatives of formula I. Furthermore, we have found processes for preparing the compounds of formula I and the use of the compounds I and compositions comprising them for use for the control of nematodes, insects, arachnids, harmful fungi and unwanted plants and the protection of plants from those pests as well as for treating, controlling, preventing and protecting warm-blooded animals, fish and humans against infestaion and infection by helminths, acarids and arthropod endo- and ectoparasites.

Fluoroalkene derivatives of formula I.1,

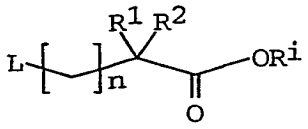


(I.1)

wherein A, X, R^1, R^2, Het, n and p are as defined for formula I above, are obtainable by, in a first step, reaction of compounds of formula II

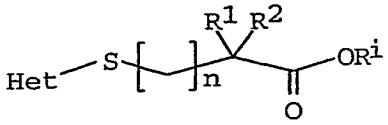
Het-SH (II)

wherein Het is as defined for formula I, with compounds of formula III



(III)

wherein R^1, R^2 and n are as defined for formula I and L is a nucleophilic exchangeable leaving group, preferably halogen such as bromine, and R^i is hydrogen, C_1-C_6-alkyl or aryl-C_1-C_6-alkyl, such as benzyl, in the presence of a base to give sulfide compounds of formula IV.



(IV)

The reaction to sulfides IV is usually carried out at temperatures of from 0°C to 150°C, preferably from 15°C to 80°C, in an inert organic solvent in the presence of a base.

Suitable solvents are halogenated hydrocarbons, such as methylene chloride and chlorobenzene, ethers, such as dimethylether, digylme, dioxane and tetrahydrofuran, nitriles, such as acetonitrile, ketones, such as acetone, and also dimethyl sulfoxide, dimethyl formamide and dimethyl acetamide. Preferred solvents are acetone and dimethyl formamide. It is also possible to use mixtures of the solvents mentioned.

Suitable bases are, inorganic compounds, such as alkali metal and alkaline earth metal carbonates, such as lithium carbonate, potassium carbonate and calcium carbonate, alkali metal bicarbonates, such as sodium bicarbonate, and also organic bases, such as tertiary amines, such as trimethyl amine, triethyl amine, tri-isopropyl ethyl amine und N-methyl- piperidine, and pyridine. Particular preference is given to alkaline earth metal carbonates, especially potassium carbonate.

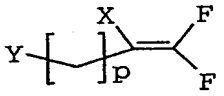
In general, the base is employed in equimolar amounts or in excess.

The starting materials are generally reacted with one another in equimolar amounts. In terms of yield, it may be advantageous to use an excess of compounds of formula III based on compounds Het-SH.

Heterocyclic thiols of formula II are known, or are commercially available, or they can be prepared by known methods [see e.g. Synthesis 3, 358-360 (2001)].

Compounds of formula IV are known from the literature or are commercially available [see e.g. J. Org. Chem. 62, 9173-9176 (1997)].

Compounds of formula IV wherein R^i is C_1-C_6-alkyl or aryl-C_1-C_6-alkyl are hydrolized to compounds IV wherein R^i is H, for example in the presence of an aqueous acid or base, and reacted with fluoroalkenyl compounds of formula V,



(V)

wherein X and p are as defined for formula I and Y is (a) a nucleophilically exchangeable group, such as halogen or hydroxy, to yield compounds I wherein A is oxygen, or (b) an amino group NHR^a, wherein R^a is as defined for formula I, preferably hydrogen, to yield compounds I wherein A is NR^a.

The reaction is carried out by common coupling methods such as in the presence of a base, optionally under activating conditions, such as by converting carboxylic acids of formula V into their corresponding carboxylic acid halides or by means of dehydrating agents such as carbodiimides, to give compounds of formula Ia [lit.: J. March, Advanced Organic Chemistry: reactions, mechanisms and structure, 4th ed. 1992, Wiley&Sons, New York].

The reaction is usually carried out at temperatures of from 0°C to 150°C, preferably from 20°C to 60°C, in an inert organic solvent in the presence of a base.

Suitable solvents are nitriles, such as acetonitrile and propionitrile, and also dimethyl sulfoxide, dimethyl formamide and dimethyl acetamide. Preferred solvents are dimethylether and

acetonitrile. It is also possible to use mixtures of the solvents mentioned.

The starting materials are generally reacted with one another in equimolar amounts. In terms of yield, it may be advantageous to use an excess of compounds V, based on acids IV. Compounds of formula V are known from the literature or are commercially available [see e.g. WO 86/07590 and WO 95/24403].

Sulfinyl and sulfonyl compounds of formula I wherein m is 1 or 2 may be prepared by oxidizing compounds of formula Ia. The oxidation is usually carried out at temperatures of from -10°C to 150°C, preferably from 0°C to 60°C, in an inert organic solvent or water. Suitable oxidizing agents are, for example m-chloroperbenzoic acid, peracetic acid, H_2O_2 x BF_3, $K_2S_2O_7/H_2SO_4$, peroxytrifluoroacetic acid, or hydrogen peroxide, optionally in combination with catalytic amounts of sodium tungsten dihydrate.

Suitable solvents are halogenated hydrocarbons, such as methylene chloride and chloroform alcohols, such as methanol and tert.-butanol, carboxylic acids such as acetic acid and trifluoroacetic acid, and also dimethyl sulfoxide, dimethyl formamide and dimethyl acetamide. Preferred solvents are methylene chloride and acetic acid. It is also possible to use mixtures of the solvents mentioned.

The reaction mixtures are worked up in a customary manner, for example by mixing with water, phase separation and, if appropriate, chromatographic purification of the crude products. In some cases, the intermediates and end products are obtained in the form of colorless or pale brown viscous oils, which are purified or freed from volatile components under reduced pressure and at moderately elevated temperature. If the intermediates and end products are obtained as solids, they can also be purified by recrystallization or digestion.

If individual compounds I are not obtainable by the routes described above, they can be prepared by derivatization of other compounds I.

In the definitions of the symbols given in the above formulae, collective terms were used which generally represent the following substituents:

Halogen: fluorine, chlorine, bromine and iodine;

Alkyl: saturated, straight-chain or branched hydrocarbon radicals having 1 to 4 or 6 carbon atoms, such as methyl, ethyl, propyl, 1-methylethyl, butyl, 1-methylpropyl, 2-methylpropyl, 1,1-dimethylethyl, pentyl, 1-methylbutyl, 2-methylbutyl, 3-methylbutyl, 2,2-dimethylpropyl, 1-ethylpropyl, hexyl, 1,1-dimethylpropyl, 1,2-dimethylpropyl, 1-methylpentyl, 2-methylpentyl, 3-methylpentyl, 4-methylpentyl, 1,1-dimethylbutyl, 1,2-dimethylbutyl, 1,3-dimethylbutyl, 2,2-dimethylbutyl, 2,3-dimethylbutyl, 3,3-dimethylbutyl, 1-ethylbutyl, 2-ethylbutyl, 1,1,2-trimethylpropyl, 1,2,2-trimethylpropyl, 1-ethyl-1-methylpropyl and 1-ethyl-2-methylpropyl;

Haloalkyl: straight-chain or branched alkyl groups having 1 to 4 or 6 carbon atoms (as mentioned above), where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as mentioned above, for example C_1-C_2-haloalkyl, such as chloromethyl, bromomethyl, dichloromethyl, trichloromethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chlorofluoromethyl, dichlorofluoromethyl, chlorodifluoromethyl, 1-chloroethyl, 1-bromoethyl, 1-fluoroethyl, 2-fluoroethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2-fluoroethyl, 2-chloro-2,2-difluoroethyl, 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl and pentafluoroethyl;

Alkenyl: unsaturated, straight-chain or branched hydrocarbon radicals having 2 to 6 carbon atoms and a double bond in any position, such as ethenyl, 1-propenyl, 2-propenyl, 1-methylethenyl, 1-butenyl, 2-butenyl, 3-butenyl, 1-methyl-1-propenyl, 2-methyl-1-propenyl, 1-methyl-2-propenyl, 2-methyl-2-propenyl; 1-pentenyl, 2-pentenyl, 3-pentenyl, 4-pentenyl, 1-methyl-1-butenyl, 2-methyl-1-butenyl, 3-methyl-1-butenyl, 1-methyl-2-butenyl, 2-methyl-2-butenyl, 3-methyl-2-butenyl, 1-methyl-3-butenyl, 2-methyl-3-butenyl, 3-methyl-3-butenyl, 1,1-dimethyl-2-propenyl, 1,2-dimethyl-1-propenyl, 1,2-dimethyl-2-propenyl, 1-ethyl-1-propenyl, 1-ethyl-2-propenyl, 1-hexenyl, 2-hexenyl, 3-hexenyl, 4-hexenyl, 5-hexenyl, 1-methyl-1-pentenyl, 2-methyl-1-pentenyl, 3-methyl-1-pentenyl, 4-methyl-1-pentenyl, 1-methyl-2-pentenyl, 2-methyl-2-pentenyl, 3-methyl-2-pentenyl, 4-methyl-2-pentenyl, 1-methyl-3-pentenyl, 2-methyl-3-pentenyl, 3-methyl-3-pentenyl, 4-methyl-3-pentenyl, 1-methyl-4-pentenyl, 2-methyl-4-pentenyl, 3-methyl-4-pentenyl, 4-methyl-4-pentenyl, 1,1-dimethyl-2-butenyl, 1,1-dimethyl-3-butenyl, 1,2-dimethyl-1-butenyl, 1,2-dimethyl-2-butenyl, 1,2-dimethyl-3-butenyl, 1,3-dimethyl-1-butenyl, 1,3-dimethyl-2-butenyl, 1,3-dimethyl-3-butenyl, 2,2-dimethyl-3-butenyl, 2,3-dimethyl-1-butenyl, 2,3-dimethyl-2-butenyl, 2,3-dimethyl-3-butenyl, 3,3-dimethyl-

1-butenyl, 3,3-dimethyl-2-butenyl, 1-ethyl-1-butenyl, 1-ethyl-2-butenyl, 1-ethyl-3-butenyl, 2-ethyl-1-butenyl, 2-ethyl-2-butenyl, 2-ethyl-3-butenyl, 1,1,2-trimethyl-2-propenyl, 1-ethyl-1-methyl-2-propenyl, 1-ethyl-2-methyl-1-propenyl and 1-ethyl-2-methyl-2-propenyl;

Haloalkenyl: unsaturated, straight-chain or branched hydrocarbon radicals having 2 to 6 carbon atoms and a double bond in any position (as mentioned above), where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as mentioned above, in particular by fluorine, chlorine and bromine;

Alkynyl: straight-chain or branched hydrocarbon groups having 2 to 6 carbon atoms and a triple bond in any position, such as ethynyl, 1-propynyl, 2-propynyl, 1-butynyl, 2-butynyl, 3-butynyl, 1-methyl-2-propynyl, 1-pentynyl, 2-pentynyl, 3-pentynyl, 4-pentynyl, 1-methyl-2-butynyl, 1-methyl-3-butynyl, 2-methyl-3-butynyl, 3-methyl-1-butynyl, 1,1-dimethyl-2-propynyl, 1-ethyl-2-propynyl, 1-hexynyl, 2-hexynyl, 3-hexynyl, 4-hexynyl, 5-hexynyl, 1-methyl-2-pentynyl, 1-methyl-3-pentynyl, 1-methyl-4-pentynyl, 2-methyl-3-pentynyl, 2-methyl-4-pentynyl, 3-methyl-1-pentynyl, 3-methyl-4-pentynyl, 4-methyl-1-pentynyl, 4-methyl-2-pentynyl, 1,1-dimethyl-2-butynyl, 1,1-dimethyl-3-butynyl, 1,2-dimethyl-3-butynyl, 2,2-dimethyl-3-butynyl, 3,3-dimethyl-1-butynyl, 1-ethyl-2-butynyl, 1-ethyl-3-butynyl, 2-ethyl-3-butynyl and 1-ethyl-1-methyl-2-propynyl;

Haloalkynyl: straight-chain or branched hydrocarbon groups having 2 to 6 carbon atoms and a triple bond in any position (as mentioned above), where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as mentioned above, in particular by fluorine, chlorine and bromine;

Alkoxycarbonyl: straight-chain or branched alkoxy groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a carbonyl group (-CO-);

Alkylaminocarbonyl: straight-chain or branched alkylamino groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a carbonyl group (-CO-);

Alkylcarbonyloxy: straight-chain or branched alkyl groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a carbonyloxy group (-C(=O)O-);

Cycloalkyl: monocyclic or bicyclic saturated hydrocarbon groups having 3 to 6, 8 or 10 carbon ring atoms, e.g. C_3-C_8-cycloalkyl such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl and dihydronaphthalin;

Heterocyclyl: 5- to 10-membered saturated or partially unsaturated rings which besides carbon ring atoms contain from 1 to 3 or 4 heteroatoms selected from nitrogen, oxygen and sulfur, e.g. from 1 to 3 nitrogen atoms and/or 1 oxygen or sulfur atom and/or 1 or 2 oxygen and/or sulfur atoms;

Aryl: mono- or bicyclic aromatic ringsystems containing 5 to 10 carbon ring atoms, e.g. phenyl or naphthyl;

Arylmethylene: mono- or bicyclic aromatic ringsystems containing 5 to 14 carbon ring atoms (as mentioned above) which are attached to the skeleton via a methylene ($-CH_2-$) group.

Hetaryl: a monocyclic or bicyclic 3- to 10-membered heteroaromatic ring system containing 1 to 5 heteroatoms selected from oxygen, sulfur and nitrogen,
e.g. 5-membered hetaryl containing beside carbon atoms 1 to 3 nitrogen atoms and/or 1 sulfur- or oxygen atom, wherein the ring system may be bonded to the backbone via carbon or nitrogen, such as furyl, thienyl, pyrrolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, 1,2,4-oxadiazolyl, 1,2,4-thiadiazolyl, 1,2,4-triazolyl, 1,3,4-oxadiazolyl, 1,3,4-thiadiazolyl and 1,3,4-triazolyl; or
e.g. 5-membered hetaryl containing beside carbon atoms 1 to 3 nitrogen atoms and/or 1 sulfur- or oxygen atom, wherein the ring system may be bonded to the backbone via carbon or nitrogen, wherein 2 adjacent ring members are bridged by a buta-1,3-dien-1,4-diyl group, wherein 1 or 2 carbon atoms may be substituted by nitrogen atoms, such as benzofuranyl, isobenzofuranyl, benzothienyl, isobenzothienyl, indolyl, isoindolyl, indazolyl, indoleninyl, isobenzazolyl, pyranopyrrolyl, isoindazolyl, indoxazinyl, benzoxazolyl, benzothiazolyl, benzimidazolyl, pyridoxazolyl, pyridothiazolyl, pyrazinoxazolyl, pyrazinthiazolyl, pyridazinoxazolyl, pyridazinthiazolyl, pyrimidinoxazolyl, pyrimidinthiazolyl, pyrimidinazolyl, benzopyranyl, purinyl;

Alkylsulfinyl: straight-chain or branched alkyl groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a sulfinyl group (-SO-);

Alkylsulfonyl: straight-chain or branched alkyl groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a sulfonyl group ($-SO_2-$);

Alkylsulfonyloxy: straight-chain or branched alkylsulfonyl groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via an oxygen atom;

Alkoxysulfonyl: straight-chain or branched alkoxy groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a sulfonyl group ($-SO_2-$);

Alkylaminosulfonyl: straight-chain or branched alkylamino groups having 1 to 6 carbon atoms (as mentioned above) which are attached to the skeleton via a sulfonyl group ($-SO_2-$);

With respect to the intended use of the fluoroalkene derivatives of formula I, particular preference is given to the following meanings of the substituents, in each case on their own or in combination:

Preference is given to compounds of formula I wherein A is oxygen or NH.

Particular preference is given to compounds of formula I wherein A is oxygen.

Preference is given to compounds of the formula I in which R^a is hydrogen or C_1-C_6-alkyl, hydrogen being preferred most.

Furthermore, preference is given to compounds of formula I wherein X is hydrogen, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, or phenyl.

Particular preference is given to compounds of formula I wherein X is hydrogen or halogen, especially fluorine.

Especially preferred are compounds of formula I wherein X is fluorine.

Preference is given to compounds of formula I wherein R^1 and R^2 are each independently hydrogen, halogen, C_1-C_6-alkyl, or phenyl wherein the alkyl and phenyl group are unsubstituted, partially or fully halogenated.

Particular preference is given to compounds of formula I wherein R^1 and R^2 are each independently hydrogen, halogen, C_1-C_4-alkyl, or phenyl.

Especially preferred are compounds of formula I wherein R^1 and R^2 are each independently hydrogen or C_1-C_4-alkyl.

Particular preference is given to compounds of formula I wherein one of R^1 and R^2 is not hydrogen.

Particular preference is given to compounds of the formula I wherein R^b is halogen, hydroxy, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy or C_1-C_6-haloalkoxy.

Especially preferred are compounds of the formula I wherein R^1 and R^2 are substituted by hydrogen or C_1-C_6-alkyl, hydrogen being preferred most.

Preference is given to compounds of the formula I wherein Het is bonded via carbon.

Particular preference is given to compounds of the formula I wherein Het is oxazolyl, thiazolyl, imidazolyl, pyrimidinyl, pyridyl, purinyl, pyridazinonyl, benzoxazolyl, pyridoxazolyl, benzothiazolyl, pyridothiazolyl, benzimidazolyl, pyrimidinazolyl, 1,3,4-oxadiazol-2-yl, or 1,3,4-thiadiazol-2-yl, each ring system being unsubstituted, partially or fully halogenated or substituted by from 1 to 3 or 4 groups selected from R^c as defined for formula I above.

Particular preference is given to compounds of the formula I wherein Het is 2-oxazolyl, 2-thiazolyl, 2-imidazolyl, 2-pyrimidinyl, 2-pyridyl, 2-purinyl, 5-pyridazinonyl, 2-benzoxazolyl, 2-pyridoxazolyl, 2-benzothiazolyl, 2-benzimidazolyl, 2-pyrimidinazolyl, 1,3,4-oxadiazol-2-yl, or 1,3,4-thiadiazol-2-yl, each ring system being unsubstituted, partially or fully halogenated or substituted by from 1 to 3 or 4 groups selected from R^c as defined for formula I above.

Especially preferred are compounds of formula I wherein Het is 2-oxazolyl, 2-thiazolyl, 2-benzoxazolyl, 2-pyridoxazolyl, 2-benzothiazolyl, 1,3,4-oxadiazol-2-yl, or 1,3,4-thiadiazol-2-yl, each ring system being unsubstituted, partially or fully halogenated or substituted by from 1 to 2 or 3 groups selected from R^c as defined for formula I above.

Preference is given to compounds of the formula I wherein R^c is cyano, nitro, halogen, hydroxy, mercapto, amino, carboxyl, aminocarbonyl, alkyl, haloalkyl, alkoxyalky, alkenyl, alkenyloxy, alkynyl, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, or dialkylaminocarbonyl, wherein the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals contain 2 to 6 carbon atoms, and wherein the carbon atoms in these groups may be partially or fully halogenated, or 5- to 10-membered mono- or bicyclic aryl, or 5- to 10-membered mono-or bicyclic hetaryl, wherein 1 to 3 carbon atoms may be substituted by heteroatoms selected from nitrogen, sulfur and oxygen, wherein the aryl or hetaryl ring systems may be partially or fully halogenated or may be substituted by from 1 to 3 groups selected from halogen, cyano, nitro, hydroxy, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, or C_1-C_6-haloalkoxy.

Particular preference is given to compounds of the formula I wherein R^c is hydroxy, halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy and phenyl, unsubstituted, partially or fully halogenated or substituted by from 1 to 3 nitro, hydroxy, cyano, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy, C_1-C_6-alkylamino, or di-C_1-C_6-alkylamino.

Particular preference is given to compounds of the formula I in which m is 0 or 2.

Particular preference is given to compounds of the formula I in which m is zero.

Preference is given to compounds of the formula I in which n is 0 or 1.

Particular preference is given to compounds of the formula I in which n is zero.

Preference is given to compounds of the formula I in which p is 2 or 4.

Preference is given to compounds of the formula I in which p is 2.

Moreover, fluoroalkene derivatives of formula I are preferred wherein the substituents and the indices have the following meanings:

A oxygen or NH;

X hydrogen or halogen;
R^1,R^2 each independently hydrogen, C_1-C_6-alkyl, or phenyl which is unsubstituted or substituted by one to three halogen atoms;
Het oxazolyl, thiazolyl, imidazolyl, pyrimidinyl, pyridyl, purinyl, pyridazinonyl, benzoxazolyl, pyridoxazolyl, benzothiazolyl, pyridothiazolyl, benzimidazolyl, pyrimidazolyl, oxadiazolyl, or thiadiazolyl, each ring being unsubstituted, partially or fully halogenated or substituted by from one to three groups selected from R^c.
R^c is hydroxy, halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy and phenyl, unsubstituted, partially or fully halogenated or substituted by from 1 to 3 nitro, hydroxy, cyano, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy, C_1-C_6-alkylamino, or di-C_1-C_6-alkylamino.
m,n 0, 1 or 2;
p 2 or 4;

Likewise, particular preference is given to compounds of the formula I wherein substituents and the indices have the following meanings:
A oxygen;
X hydrogen or fluorine;
R^1,R^2 each independently hydrogen, C_1-C_4-alkyl;
Het 2-oxazolyl, 2-thiazolyl, 2-benzoxazolyl, 2-pyridoxazolyl, 2-benzothiazolyl, 2-pyridothiazolyl, 1,3,4-oxadiazol-2-yl, or 1,3,4-thiadiazol-2-yl, each ring being unsubstituted, partially or fully halogenated or substituted by from one to three groups selected from hydroxy, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy, or phenyl, unsubstituted, partially or fully halogenated or substituted by from 1 to 3 nitro, cyano, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy or C_1-C_6-haloalkoxy groups.
m,n zero;
p 2 or 4.

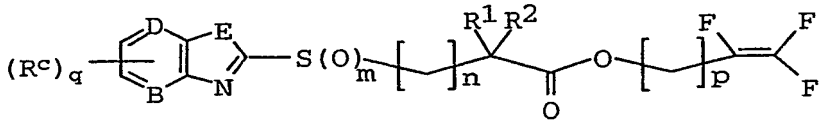
Particular preference is given to compounds of formula I wherein A is oxygen, X is hydrogen or fluorine, R^1 and R^2 are each independently hydrogen, C_1-C_4-alkyl, or phenyl, Het is 2-benzoxazolyl, 2-benzothiazolyl, 4-pyridothiazol-2-yl, 4-pyridoxazol-2-yl, 5-pyridothiazol-2-yl, 5-pyridoxazol-2-yl, 6-pyridothiazol-2-yl, 6-pyridoxazol-2-yl, 7-pyridothiazol-2-yl, 7-pyridoxazol-2-yl, 2-pyrazinthiazolyl, 2-pyrazinoxazolyl, each ring being unsubstituted or substituted by 1 group selected from halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkoxy, nitro, amino, and methylcarbonylamino, m is zero, n is 1, and p is 2 or 4.

Particular preference is given to compounds of formula I wherein A is oxygen, X is hydrogen or fluorine, R^1 and R^2 are each independently hydrogen, C_1-C_4-alkyl, or phenyl, Het is 2-oxazolyl, 2-thiazolyl, 2-imidazolyl, each ring being unsubstituted or substituted by 1 or 2 groups selected from halogen, C_1-C_4-alkyl, C_1-C_4-alkoxymethylene, C_1-C_4-alkylcarbonyloxy, and phenyl which may be substutited by from 1 to 3 substituents selected from halogen, C_1-C_4-alkyl and hydroxy, m is zero, n is 1, and p is 2 or 4.

Particular preference is given to compounds of formula I wherein A is oxygen, X is hydrogen or fluorine, R^1 and R^2 are each independently hydrogen, C_1-C_4-alkyl, or phenyl, Het is thiadiazolyl or oxadiazolyl, each ring being unsubstituted or substituted by one group selected from halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkoxy, nitro, amino, and methylcarbonylamino, m and n are integers of 0, and p is an integer of 2 or 4.

Furthermore, compounds of the following formulae are especially preferred:

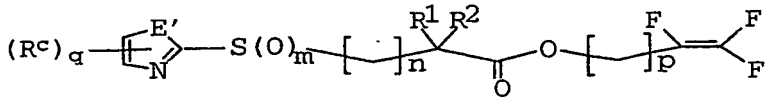
Compounds of formula I.2



(I.2),

wherein B is nitrogen or CH, in particular CH, D is nitrogen or CH, in particular CH, E is oxygen or sulfur, R^1 and R^2 are each independently hydrogen, C_1-C_4-alkyl or phenyl, q is 0 or 1, R^c is halogen, methyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, m is 0, 1 or 2, n is 0 or 1 and p is 2 or 4, with the proviso that B is CH when E is sulfur.

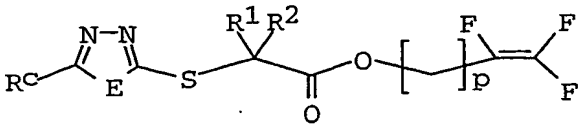
Compounds of formula I.3



(I.3),

wherein E' is oxygen, sulfur or NH, R^1 and R^2 are each independently hydrogen or C_1-C_4-alkyl, q is 0, 1 , or 2, R^c is phenyl which may be substituted by one or two halogen, m is 0, 1 or 2, n is 0 or 1, p is 2 or 4.

Compounds of formula I.4



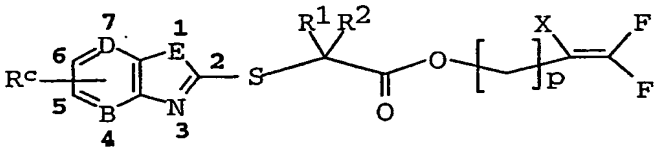
(I.4),

wherein E is oxygen or sulfur, R^1 and R^2 are each independently hydrogen or C_1-C_4-alkyl, R^c is C_1-C_4-alkyl or phenyl which may be substituted by halogen or methyl, and p is 2.

With respect to their use, particular preference is given to the compounds I.5, I.6 and I.7 compiled in the Tables below. Moreover, the groups mentioned for a substituent in the Tables are on their own, independently of the combination in which they are mentioned, a particularly preferred embodiment of the substituent in question.

Further preference is given to the compounds of the tables 1 to 440 wherein A is NH.

Table 1
Compounds of the formula I.5



(I.5),

wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 2
Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 3
Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 4
Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 5
Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is

hydrogen and R^2 is n-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 6

Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 7

Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 8

Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 9

Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl and the combination of B, D, E and R^b for a compound corresponds in each case to a row of Table A.

Table 10

Compounds of the formula I.5 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 11

Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 12

Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 13

Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 14

Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl and the combination of B, D, E and R^c

for a compound corresponds in each case to a row of Table A.

Table 15
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 16
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 17
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 18
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 19
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 20
Compounds of the formula I.5 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 21
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 22
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 23
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 24
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 25
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 26
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 27
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 28
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 29
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 30
Compounds of the formula I.5 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 31
Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 32
Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 33
Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is

hydrogen and R^2 is ethyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 34

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 35

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 36

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 37

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 38

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

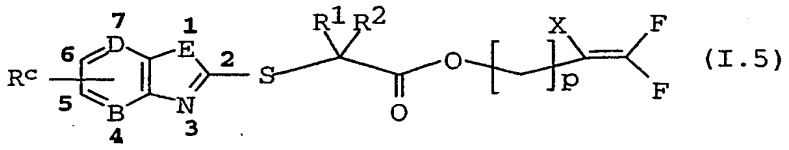
Table 39

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table 40

Compounds of the formula I.5 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl and the combination of B, D, E and R^c for a compound corresponds in each case to a row of Table A.

Table A



(I.5)

Nr.	B	D	E	R^c
A-1	CH	CH	O	-
A-2	CH	CH	O	4-CH_3
A-3	CH	CH	O	4-CH_2CH_3
A-4	CH	CH	O	4-$CH_2CH_2CH_3$
A-5	CH	CH	O	4-$CH(CH_3)_2$
A-6	CH	CH	O	4-$CH_2CH_2CH_2CH_3$
A-7	CH	CH	O	4-$CH_2CH(CH_3)_2$
A-8	CH	CH	O	4-$CH(CH_3)_3$
A-9	CH	CH	O	4-F
A-10	CH	CH	O	4-Cl
A-11	CH	CH	O	4-Br
A-12	CH	CH	O	4-I
A-13	CH	CH	O	4-CF_3
A-14	CH	CH	O	4-OCF_3
A-15	CH	CH	O	4-OCH_3
A-16	CH	CH	O	4-OCH_2CH_3
A-17	CH	CH	O	4-$OCH_2CH_2CH_3$
A-18	CH	CH	O	4-$OCH(CH_3)_2$
A-19	CH	CH	O	4-NO_2
A-20	CH	CH	O	4-NH_2
A-21	CH	CH	O	4-NH(C=O)CH_3
A-22	CH	CH	O	5-CH_3
A-23	CH	CH	O	5-CH_2CH_3
A-24	CH	CH	O	5-$CH_2CH_2CH_3$
A-25	CH	CH	O	5-$CH(CH_3)_2$
A-26	CH	CH	O	5-$CH_2CH_2CH_2CH_3$
A-27	CH	CH	O	5-$CH_2CH(CH_3)_2$
A-28	CH	CH	O	5-$CH(CH_3)_3$
A-29	CH	CH	O	5-F
A-30	CH	CH	O	5-Cl
A-31	CH	CH	O	5-Br
A-32	CH	CH	O	5-I
A-33	CH	CH	O	5-CF_3
A-34	CH	CH	O	5-OCF_3
A-35	CH	CH	O	5-OCH_3
A-36	CH	CH	O	5-OCH_2CH_3

Nr.	B	D	E	R^c
A-37	CH	CH	O	5-$OCH_2CH_2CH_3$
A-38	CH	CH	O	5-$OCH(CH_3)_2$
A-39	CH	CH	O	5-NO_2
A-40	CH	CH	O	5-NH_2
A-41	CH	CH	O	5-$NH(C=O)CH_3$
A-42	CH	CH	O	6-CH_3
A-43	CH	CH	O	6-CH_2CH_3
A-44	CH	CH	O	6-$CH_2CH_2CH_3$
A-45	CH	CH	O	6-$CH(CH_3)_2$
A-46	CH	CH	O	6-$CH_2CH_2CH_2CH_3$
A-47	CH	CH	O	6-$CH_2CH(CH_3)_2$
A-48	CH	CH	O	6-$CH(CH_3)_3$
A-49	CH	CH	O	6-F
A-50	CH	CH	O	6-Cl
A-51	CH	CH	O	6-Br
A-52	CH	CH	O	6-I
A-53	CH	CH	O	6-CF_3
A-54	CH	CH	O	6-OCF_3
A-55	CH	CH	O	6-OCH_3
A-56	CH	CH	O	6-OCH_2CH_3
A-57	CH	CH	O	6-$OCH_2CH_2CH_3$
A-58	CH	CH	O	6-$OCH(CH_3)_2$
A-59	CH	CH	O	6-NO_2
A-60	CH	CH	O	6-NH_2
A-61	CH	CH	O	6-$NH(C=O)CH_3$
A-62	CH	CH	O	7-CH_3
A-63	CH	CH	O	7-CH_2CH_3
A-64	CH	CH	O	7-$CH_2CH_2CH_3$
A-65	CH	CH	O	7-$CH(CH_3)_2$
A-66	CH	CH	O	7-$CH_2CH_2CH_2CH_3$
A-67	CH	CH	O	7-$CH_2CH(CH_3)_2$
A-68	CH	CH	O	7-$CH(CH_3)_3$
A-69	CH	CH	O	7-F
A-70	CH	CH	O	7-Cl
A-71	CH	CH	O	7-Br
A-72	CH	CH	O	7-I
A-73	CH	CH	O	7-CF_3
A-74	CH	CH	O	7-OCF_3
A-75	CH	CH	O	7-OCH_3

Nr.	B	D	E	R^c
A-76	CH	CH	O	7-OCH_2CH_3
A-77	CH	CH	O	7-$OCH_2CH_2CH_3$
A-78	CH	CH	O	7-$OCH(CH_3)_2$
A-79	CH	CH	O	7-NO_2
A-80	CH	CH	O	7-NH_2
A-81	CH	CH	O	7-$NH(C=O)CH_3$
A-82	CH	CH	S	-
A-83	CH	CH	S	4-CH_3
A-84	CH	CH	S	4-CH_2CH_3
A-85	CH	CH	S	4-$CH_2CH_2CH_3$
A-86	CH	CH	S	4-$CH(CH_3)_2$
A-87	CH	CH	S	4-$CH_2CH_2CH_2CH_3$
A-88	CH	CH	S	4-$CH_2CH(CH_3)_2$
A-89	CH	CH	S	4-$CH(CH_3)_3$
A-90	CH	CH	S	4-F
A-91	CH	CH	S	4-Cl
A-92	CH	CH	S	4-Br
A-93	CH	CH	S	4-I
A-94	CH	CH	S	4-CF_3
A-95	CH	CH	S	4-OCF_3
A-96	CH	CH	S	4-OCH_3
A-97	CH	CH	S	4-OCH_2CH_3
A-98	CH	CH	S	4-$OCH_2CH_2CH_3$
A-99	CH	CH	S	4-$OCH(CH_3)_2$
A-100	CH	CH	S	4-NO_2
A-101	CH	CH	S	4-NH_2
A-102	CH	CH	S	4-$NH(C=O)CH_3$
A-103	CH	CH	S	5-CH_3
A-104	CH	CH	S	5-CH_2CH_3
A-105	CH	CH	S	5-$CH_2CH_2CH_3$
A-106	CH	CH	S	5-$CH(CH_3)_2$
A-107	CH	CH	S	5-$CH_2CH_2CH_2CH_3$
A-108	CH	CH	S	5-$CH_2CH(CH_3)_2$
A-109	CH	CH	S	5-$CH(CH_3)_3$
A-110	CH	CH	S	5-F
A-111	CH	CH	S	5-Cl
A-112	CH	CH	S	5-Br
A-113	CH	CH	S	5-I
A-114	CH	CH	S	5-CF_3

Nr.	B	D	E	R^c
A-115	CH	CH	S	5-OCF_3
A-116	CH	CH	S	5-OCH_3
A-117	CH	CH	S	5-OCH_2CH_3
A-118	CH	CH	S	5-$OCH_2CH_2CH_3$
A-119	CH	CH	S	5-$OCH(CH_3)_2$
A-120	CH	CH	S	5-NO_2
A-121	CH	CH	S	5-NH_2
A-122	CH	CH	S	5-$NH(C=O)CH_3$
A-123	CH	CH	S	6-CH_3
A-124	CH	CH	S	6-CH_2CH_3
A-125	CH	CH	S	6-$CH_2CH_2CH_3$
A-126	CH	CH	S	6-$CH(CH_3)_2$
A-127	CH	CH	S	6-$CH_2CH_2CH_2CH_3$
A-128	CH	CH	S	6-$CH_2CH(CH_3)_2$
A-129	CH	CH	S	6-$CH(CH_3)_3$
A-130	CH	CH	S	6-F
A-131	CH	CH	S	6-Cl
A-132	CH	CH	S	6-Br
A-133	CH	CH	S	6-I
A-134	CH	CH	S	6-CF_3
A-135	CH	CH	S	6-OCF_3
A-136	CH	CH	S	6-OCH_3
A-137	CH	CH	S	6-OCH_2CH_3
A-138	CH	CH	S	6-$OCH_2CH_2CH_3$
A-139	CH	CH	S	6-$OCH(CH_3)_2$
A-140	CH	CH	S	6-NO_2
A-141	CH	CH	S	6-NH_2
A-142	CH	CH	S	6-$NH(C=O)CH_3$
A-143	CH	CH	S	7-CH_3
A-144	CH	CH	S	7-CH_2CH_3
A-145	CH	CH	S	7-$CH_2CH_2CH_3$
A-146	CH	CH	S	7-$CH(CH_3)_2$
A-147	CH	CH	S	7-$CH_2CH_2CH_2CH_3$
A-148	CH	CH	S	7-$CH_2CH(CH_3)_2$
A-149	CH	CH	S	7-$CH(CH_3)_3$
A-150	CH	CH	S	7-F
A-151	CH	CH	S	7-Cl
A-152	CH	CH	S	7-Br
A-153	CH	CH	S	7-I

Nr.	B	D	E	R^c
A-154	CH	CH	S	7-CF_3
A-155	CH	CH	S	7-OCF_3
A-156	CH	CH	S	7-OCH_3
A-157	CH	CH	S	7-OCH_2CH_3
A-158	CH	CH	S	7-$OCH_2CH_2CH_3$
A-159	CH	CH	S	7-$OCH(CH_3)_2$
A-160	CH	CH	S	7-NO_2
A-161	CH	CH	S	7-NH_2
A-162	CH	CH	S	7-$NH(C=O)CH_3$
A-163	CH	N	O	-
A-164	CH	N	O	4-CH_3
A-165	CH	N	O	4-CH_2CH_3
A-166	CH	N	O	4-$CH_2CH_2CH_3$
A-167	CH	N	O	4-$CH(CH_3)_2$
A-168	CH	N	O	4-$CH_2CH_2CH_2CH_3$
A-169	CH	N	O	4-$CH_2CH(CH_3)_2$
A-170	CH	N	O	4-$CH(CH_3)_3$
A-171	CH	N	O	4-F
A-172	CH	N	O	4-Cl
A-173	CH	N	O	4-Br
A-174	CH	N	O	4-I
A-175	CH	N	O	4-CF_3
A-176	CH	N	O	4-OCF_3
A-177	CH	N	O	4-OCH_3
A-178	CH	N	O	4-OCH_2CH_3
A-179	CH	N	O	4-$OCH_2CH_2CH_3$
A-180	CH	N	O	4-$OCH(CH_3)_2$
A-181	CH	N	O	4-NO_2
A-182	CH	N	O	4-NH_2
A-183	CH	N	O	4-$NH(C=O)CH_3$
A-184	CH	N	O	5-CH_3
A-185	CH	N	O	5-CH_2CH_3
A-186	CH	N	O	5-$CH_2CH_2CH_3$
A-187	CH	N	O	5-$CH(CH_3)_2$
A-188	CH	N	O	5-$CH_2CH_2CH_2CH_3$
A-189	CH	N	O	5-$CH_2CH(CH_3)_2$
A-190	CH	N	O	5-$CH(CH_3)_3$
A-191	CH	N	O	5-F
A-192	CH	N	O	5-Cl

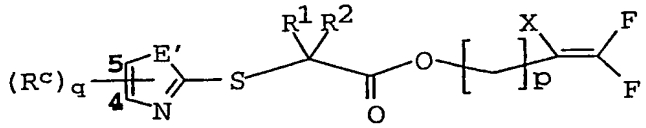
Nr.	B	D	E	R^c
A-193	CH	N	O	5-Br
A-194	CH	N	O	5-I
A-195	CH	N	O	5-CF_3
A-196	CH	N	O	5-OCF_3
A-197	CH	N	O	5-OCH_3
A-198	CH	N	O	5-OCH_2CH_3
A-199	CH	N	O	5-$OCH_2CH_2CH_3$
A-200	CH	N	O	5-$OCH(CH_3)_2$
A-201	CH	N	O	5-NO_2
A-202	CH	N	O	5-NH_2
A-203	CH	N	O	5-NH(C=O)CH_3
A-204	CH	N	O	6-CH_3
A-205	CH	N	O	6-CH_2CH_3
A-206	CH	N	O	6-$CH_2CH_2CH_3$
A-207	CH	N	O	6-$CH(CH_3)_2$
A-208	CH	N	O	6-$CH_2CH_2CH_2CH_3$
A-209	CH	N	O	6-$CH_2CH(CH_3)_2$
A-210	CH	N	O	6-$CH(CH_3)_3$
A-211	CH	N	O	6-F
A-212	CH	N	O	6-Cl
A-213	CH	N	O	6-Br
A-214	CH	N	O	6-I
A-215	CH	N	O	6-CF_3
A-216	CH	N	O	6-OCF_3
A-217	CH	N	O	6-OCH_3
A-218	CH	N	O	6-OCH_2CH_3
A-219	CH	N	O	6-$OCH_2CH_2CH_3$
A-220	CH	N	O	6-$OCH(CH_3)_2$
A-221	CH	N	O	6-NO_2
A-222	CH	N	O	6-NH_2
A-223	CH	N	O	6-NH(C=O)CH_3
A-224	CH	N	S	-
A-225	CH	N	S	4-CH_3
A-226	CH	N	S	4-CH_2CH_3
A-227	CH	N	S	4-$CH_2CH_2CH_3$
A-228	CH	N	S	4-$CH(CH_3)_2$
A-229	CH	N	S	4-$CH_2CH_2CH_2CH_3$
A-230	CH	N	S	4-$CH_2CH(CH_3)_2$
A-231	CH	N	S	4-$CH(CH_3)_3$

Nr.	B	D	E	R^c
A-232	CH	N	S	4-F
A-233	CH	N	S	4-Cl
A-234	CH	N	S	4-Br
A-235	CH	N	S	4-I
A-236	CH	N	S	$4-CF_3$
A-237	CH	N	S	$4-OCF_3$
A-238	CH	N	S	$4-OCH_3$
A-239	CH	N	S	$4-OCH_2CH_3$
A-240	CH	N	S	$4-OCH_2CH_2CH_3$
A-241	CH	N	S	$4-OCH(CH_3)_2$
A-242	CH	N	S	$4-NO_2$
A-243	CH	N	S	$4-NH_2$
A-244	CH	N	S	$4-NH(C=O)CH_3$
A-245	CH	N	S	$5-CH_3$
A-246	CH	N	S	$5-CH_2CH_3$
A-247	CH	N	S	$5-CH_2CH_2CH_3$
A-248	CH	N	S	$5-CH(CH_3)_2$
A-249	CH	N	S	$5-CH_2CH_2CH_2CH_3$
A-250	CH	N	S	$5-CH_2CH(CH_3)_2$
A-251	CH	N	S	$5-CH(CH_3)_3$
A-252	CH	N	S	5-F
A-253	CH	N	S	5-Cl
A-254	CH	N	S	5-Br
A-255	CH	N	S	5-I
A-256	CH	N	S	$5-CF_3$
A-257	CH	N	S	$5-OCF_3$
A-258	CH	N	S	$5-OCH_3$
A-259	CH	N	S	$5-OCH_2CH_3$
A-260	CH	N	S	$5-OCH_2CH_2CH_3$
A-261	CH	N	S	$5-OCH(CH_3)_2$
A-262	CH	N	S	$5-NO_2$
A-263	CH	N	S	$5-NH_2$
A-264	CH	N	S	$5-NH(C=O)CH_3$
A-265	CH	N	S	$6-CH_3$
A-266	CH	N	S	$6-CH_2CH_3$
A-267	CH	N	S	$6-CH_2CH_2CH_3$
A-268	CH	N	S	$6-CH(CH_3)_2$
A-269	CH	N	S	$6-CH_2CH_2CH_2CH_3$
A-270	CH	N	S	$6-CH_2CH(CH_3)_2$

Nr.	B	D	E	R^c
A-271	CH	N	S	6-$CH(CH_3)_3$
A-272	CH	N	S	6-F
A-273	CH	N	S	6-Cl
A-274	CH	N	S	6-Br
A-275	CH	N	S	6-I
A-276	CH	N	S	6-CF_3
A-277	CH	N	S	6-OCF_3
A-278	CH	N	S	6-OCH_3
A-279	CH	N	S	6-OCH_2CH_3
A-280	CH	N	S	6-$OCH_2CH_2CH_3$
A-281	CH	N	S	6-$OCH(CH_3)_2$
A-282	CH	N	S	6-NO_2
A-283	CH	N	S	6-NH_2
A-284	CH	N	S	6-$NH(C=O)CH_3$
A-285	N	CH	O	-
A-286	N	CH	O	5-CH_3
A-287	N	CH	O	5-CH_2CH_3
A-288	N	CH	O	5-$CH_2CH_2CH_3$
A-289	N	CH	O	5-$CH(CH_3)_2$
A-290	N	CH	O	5-$CH_2CH_2CH_2CH_3$
A-291	N	CH	O	5-$CH_2CH(CH_3)_2$
A-292	N	CH	O	5-$CH(CH_3)_3$
A-293	N	CH	O	5-F
A-294	N	CH	O	5-Cl
A-295	N	CH	O	5-Br
A-296	N	CH	O	5-I
A-297	N	CH	O	5-CF_3
A-298	N	CH	O	5-OCF_3
A-299	N	CH	O	5-OCH_3
A-300	N	CH	O	5-OCH_2CH_3
A-301	N	CH	O	5-$OCH_2CH_2CH_3$
A-302	N	CH	O	5-$OCH(CH_3)_2$
A-303	N	CH	O	5-NO_2
A-304	N	CH	O	5-NH_2
A-305	N	CH	O	5-$NH(C=O)CH_3$
A-306	N	CH	O	6-CH_3
A-307	N	CH	O	6-CH_2CH_3
A-308	N	CH	O	6-$CH_2CH_2CH_3$
A-309	N	CH	O	6-$CH(CH_3)_2$

Nr.	B	D	E	R^c
A-310	N	CH	O	6-$CH_2CH_2CH_2CH_3$
A-311	N	CH	O	6-$CH_2CH(CH_3)_2$
A-312	N	CH	O	6-$CH(CH_3)_3$
A-313	N	CH	O	6-F
A-314	N	CH	O	6-Cl
A-315	N	CH	O	6-Br
A-316	N	CH	O	6-I
A-317	N	CH	O	6-CF_3
A-318	N	CH	O	6-OCF_3
A-319	N	CH	O	6-OCH_3
A-320	N	CH	O	6-OCH_2CH_3
A-321	N	CH	O	6-$OCH_2CH_2CH_3$
A-322	N	CH	O	6-$OCH(CH_3)_2$
A-323	N	CH	O	6-NO_2
A-324	N	CH	O	6-NH_2
A-325	N	CH	O	6-NH(C=O)CH_3
A-326	N	CH	O	7-CH_3
A-327	N	CH	O	7-CH_2CH_3
A-328	N	CH	O	7-$CH_2CH_2CH_3$
A-329	N	CH	O	7-$CH(CH_3)_2$
A-330	N	CH	O	7-$CH_2CH_2CH_2CH_3$
A-331	N	CH	O	7-$CH_2CH(CH_3)_2$
A-332	N	CH	O	7-$CH(CH_3)_3$
A-333	N	CH	O	7-F
A-334	N	CH	O	7-Cl
A-335	N	CH	O	7-Br
A-336	N	CH	O	7-I
A-337	N	CH	O	7-CF_3
A-338	N	CH	O	7-OCF_3
A-339	N	CH	O	7-OCH_3
A-340	N	CH	O	7-OCH_2CH_3
A-341	N	CH	O	7-$OCH_2CH_2CH_3$
A-342	N	CH	O	7-$OCH(CH_3)_2$
A-343	N	CH	O	7-NO_2
A-344	N	CH	O	7-NH_2
A-345	N	CH	O	7-NH(C=O)CH_3

Table 41
Compounds of the formula I.6



(I.6),

wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 42
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 43
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 44
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 45
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 46
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 47
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 48
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 49
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is

hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 50

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 51

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 52

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 53

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 54

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 55

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 56

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 57

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 58

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the

4-position and corresponds in each case to a row of Table B.

Table 59
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 60
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 61
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 62
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 63
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 64
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 65
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 66
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 67
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 68
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 69
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 70
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 71
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 72
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 73
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 74
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 75
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 76
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 77
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is

hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 78

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 79

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 80

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 81

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 82

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 83

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 84

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 85

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 86

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the

5-position and corresponds in each case to a row of Table B.

Table 87
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 88
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 89
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 90
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 91
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 92
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 93
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 94
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 95
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 96
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 97
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 98
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 99
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 100
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 101
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 102
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 103
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 104
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 105
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is

hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 106

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 107

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 108

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 109

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 110

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 111

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 112

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 113

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 114

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen and $(R^c)_q$ is in the

5-position and corresponds in each case to a row of Table B.

Table 115
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 116
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 117
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 118
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 119
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 120
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 121
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 122
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 123
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 124
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 125
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 126
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 127
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 128
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 129
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 130
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 131
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 132
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 133
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is

hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 134
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 135
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 136
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 137
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 138
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 139
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 140
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 141
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 142
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the

4-position and corresponds in each case to a row of Table B.

Table 143
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 144
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 145
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 146
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 147
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 148
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 149
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 150
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 151
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 152
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 153
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 154
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 155
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 156
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 157
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 158
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 159
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 160
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 161
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and

R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 162
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 163
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 164
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 165
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 166
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 167
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 168
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 169
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 170
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the

5-position and corresponds in each case to a row of Table B.

Table 171
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 172
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 173
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 174
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 175
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 176
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 177
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 178
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 179
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 180
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 181
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 182
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 183
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and R^c is in the 5-position and corresponds in each case to a row of Table B.

Table 184
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 185
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 186
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 187
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 188
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 189
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is

hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 190

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 191

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 192

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 193

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 194

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 195

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 196

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 197

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 198

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur and $(R^c)_q$ is in the

5-position and corresponds in each case to a row of Table B.

Table 199
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 200
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 201
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 202
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 203
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 204
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 205
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 206
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 207
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 208
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 209
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 210
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 211
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 212
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 213
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 214
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 215
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 216
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 217
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is

hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 218
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 219
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 220
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 221
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 222
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 223
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 224
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 225
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 226
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the

4-position and corresponds in each case to a row of Table B.

Table 227
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 228
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 229
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 230
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 231
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 232
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 233
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 234
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 235
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 236
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 237
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 238
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 239
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 240
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 4-position and corresponds in each case to a row of Table B.

Table 241
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 242
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 243
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 244
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 245
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is

hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 246

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 247

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 248

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 249

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 250

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 251

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 252

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 253

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 254

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the

5-position and corresponds in each case to a row of Table B.

Table 255
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 256
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 257
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 258
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 259
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 260
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 261
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 262
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 263
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 264
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 265
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 266
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 267
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 268
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 269
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 270
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 271
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 272
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 273
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is

hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 274

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 275

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 276

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 277

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is NH and R^c is in the 5-position and corresponds in each case to a row of Table B.

Table 278

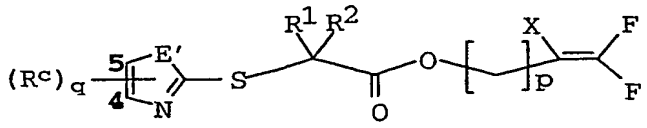
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 279

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.

Table 280

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ is in the 5-position and corresponds in each case to a row of Table B.



(I.6)

Table B

Nr.	$(R^c)_q$
B-1	-
B-2	CH_3

Nr.	$(R^c)_q$
B-3	CH_2CH_3
B-4	$CH_2CH_2CH_3$
B-5	$CH(CH_3)_2$
B-6	$C(CH_3)_3$
B-7	Cl
B-8	Br
B-9	CH_2OCH_3
B-10	$COOCH_3$
B-11	C_6H_5
B-12	$2\text{-}F\text{-}C_6H_4$
B-13	$3\text{-}F\text{-}C_6H_4$
B-14	$4\text{-}F\text{-}C_6H_4$
B-15	$2\text{-}Cl\text{-}C_6H_4$
B-16	$3\text{-}Cl\text{-}C_6H_4$
B-17	$4\text{-}Cl\text{-}C_6H_4$
B-18	$2\text{-}CH_3\text{-}C_6H_4$
B-19	$3\text{-}CH_3\text{-}C_6H_4$
B-20	$4\text{-}CH_3\text{-}C_6H_4$
B-21	$2,3\text{-}(CH_3)_2\text{-}C_6H_3$
B-22	$2,4\text{-}(CH_3)_2\text{-}C_6H_3$
B-23	$2,5\text{-}(CH_3)_2\text{-}C_6H_3$
B-24	$3,4\text{-}(CH_3)_2\text{-}C_6H_3$
B-25	$3,5\text{-}(CH_3)_2\text{-}C_6H_3$
B-26	$2,3\text{-}Cl_2\text{-}C_6H_3$
B-27	$2,4\text{-}Cl_2\text{-}C_6H_3$
B-28	$2,5\text{-}Cl_2\text{-}C_6H_3$
B-29	$3,4\text{-}Cl_2\text{-}C_6H_3$
B-30	$3,5\text{-}Cl_2\text{-}C_6H_3$
B-31	$2,3\text{-}F_2\text{-}C_6H_3$
B-32	$2,4\text{-}F_2\text{-}C_6H_3$
B-33	$2,5\text{-}F_2\text{-}C_6H_3$
B-34	$3,4\text{-}F_2\text{-}C_6H_3$
B-35	$3,5\text{-}F_2\text{-}C_6H_3$
B-36	$2\text{-}F\text{-}3\text{-}Cl\text{-}C_6H_3$
B-37	$2\text{-}F\text{-}4\text{-}Cl\text{-}C_6H_3$
B-38	$2\text{-}F\text{-}5\text{-}Cl\text{-}C_6H_3$
B-39	$3\text{-}F\text{-}4\text{-}Cl\text{-}C_6H_3$
B-40	$3\text{-}F\text{-}5\text{-}Cl\text{-}C_6H_3$
B-41	$2\text{-}Cl\text{-}3\text{-}F\text{-}C_6H_3$

Nr.	$(R^c)_q$
B-42	2-Cl-4-F-C_6H_3
B-43	2-Cl-5-F-C_6H_3
B-44	3-Cl-4-F-C_6H_3
B-45	3-Cl-5-F-C_6H_3
B-46	2-F-3-CH_3-C_6H_3
B-47	2-F-4-CH_3-C_6H_3
B-48	2-F-5-CH_3-C_6H_3
B-49	3-F-4-CH_3-C_6H_3
B-50	3-F-5-CH_3-C_6H_3
B-51	2-CH_3-3-F-C_6H_3
B-52	2-CH_3-4-F-C_6H_3
B-53	2-CH_3-5-F-C_6H_3
B-54	3-CH_3-4-F-C_6H_3
B-55	3-CH_3-5-F-C_6H_3
B-56	2-Cl-3-CH_3-C_6H_3
B-57	2-Cl-4-CH_3-C_6H_3
B-58	2-Cl-5-CH_3-C_6H_3
B-59	3-Cl-4-CH_3-C_6H_3
B-60	3-Cl-5-CH_3-C_6H_3
B-61	2-CH_3-3-Cl-C_6H_3
B-62	2-CH_3-4-Cl-C_6H_3
B-63	2-CH_3-5-Cl-C_6H_3
B-64	3-CH_3-4-Cl-C_6H_3
B-65	3-CH_3-5-Cl-C_6H_3
B-66	2,3,4-$(CH_3)_3$-C_6H_2
B-67	2,3,5-$(CH_3)_3$-C_6H_2
B-68	2,3,6-$(CH_3)_3$-C_6H_2
B-69	2,4,5-$(CH_3)_3$-C_6H_2
B-70	2,4,6-$(CH_3)_3$-C_6H_2
B-71	3,4,5-$(CH_3)_3$-C_6H_2
B-72	3,4,6-$(CH_3)_3$-C_6H_2
B-73	2,3,4-F_3-C_6H_2
B-74	2,3,5-F_3-C_6H_2
B-75	2,3,6-F_3-C_6H_2
B-76	2,4,5-F_3-C_6H_2
B-77	2,4,6-F_3-C_6H_2
B-78	3,4,5-F_3-C_6H_2
B-79	3,4,6-F_3-C_6H_2
B-80	2,3,4-Cl_3-C_6H_2

Nr.	$(R^c)_q$
B-81	2,3,5-Cl_3-C_6H_2
B-82	2,3,6-Cl_3-C_6H_2
B-83	2,4,5-Cl_3-C_6H_2
B-84	2,4,6-Cl_3-C_6H_2
B-85	3,4,5-Cl_3-C_6H_2
B-86	3,4,6-Cl_3-C_6H_2
B-87	2-Cl-3,4-$(CH_3)_2$-C_6H_2
B-88	3-Cl-2,4-$(CH_3)_2$-C_6H_2
B-89	4-Cl-2,3-$(CH_3)_2$-C_6H_2
B-90	2-Cl-3,5-$(CH_3)_2$-C_6H_2
B-91	3-Cl-2,5-$(CH_3)_2$-C_6H_2
B-92	5-Cl-2,3-$(CH_3)_2$-C_6H_2
B-93	2-Cl-3,6-$(CH_3)_2$-C_6H_2
B-94	3-Cl-2,6-$(CH_3)_2$-C_6H_2
B-95	6-Cl-2,3-$(CH_3)_2$-C_6H_2
B-96	2-Cl-4,5-$(CH_3)_2$-C_6H_2
B-97	4-Cl-2,5-$(CH_3)_2$-C_6H_2
B-98	5-Cl-2,4-$(CH_3)_2$-C_6H_2
B-99	2-Cl-4,6-$(CH_3)_2$-C_6H_2
B-100	4-Cl-2,6-$(CH_3)_2$-C_6H_2
B-101	6-Cl-2,4-$(CH_3)_2$-C_6H_2
B-102	3-Cl-4,5-$(CH_3)_2$-C_6H_2
B-103	4-Cl-3,5-$(CH_3)_2$-C_6H_2
B-104	5-Cl-3,4-$(CH_3)_2$-C_6H_2
B-105	3-Cl-4,6-$(CH_3)_2$-C_6H_2
B-106	4-Cl-3,6-$(CH_3)_2$-C_6H_2
B-107	6-Cl-3,4-$(CH_3)_2$-C_6H_2
B-108	3-Cl-5,6-$(CH_3)_2$-C_6H_2
B-109	5-Cl-3,6-$(CH_3)_2$-C_6H_2
B-110	6-Cl-3,5-$(CH_3)_2$-C_6H_2
B-111	2-F-3,4-$(CH_3)_2$-C_6H_2
B-112	3-F-2,4-$(CH_3)_2$-C_6H_2
B-113	4-F-2,3-$(CH_3)_2$-C_6H_2
B-114	2-F-3,5-$(CH_3)_2$-C_6H_2
B-115	3-F-2,5-$(CH_3)_2$-C_6H_2
B-116	5-F-2,3-$(CH_3)_2$-C_6H_2
B-117	2-F-3,6-$(CH_3)_2$-C_6H_2
B-118	3-F-2,6-$(CH_3)_2$-C_6H_2
B-119	6-F-2,3-$(CH_3)_2$-C_6H_2

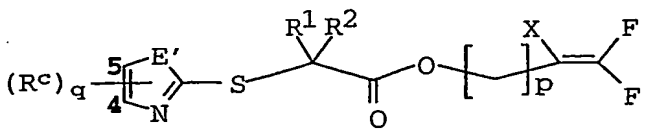
Nr.	$(R^c)_q$
B-120	2-F-4,5-$(CH_3)_2$-C_6H_2
B-121	4-F-2,5-$(CH_3)_2$-C_6H_2
B-122	5-F-2,4-$(CH_3)_2$-C_6H_2
B-123	2-F-4,6-$(CH_3)_2$-C_6H_2
B-124	4-F-2,6-$(CH_3)_2$-C_6H_2
B-125	6-F-2,4-$(CH_3)_2$-C_6H_2
B-126	3-F-4,5-$(CH_3)_2$-C_6H_2
B-127	4-F-3,5-$(CH_3)_2$-C_6H_2
B-128	5-F-3,4-$(CH_3)_2$-C_6H_2
B-129	3-F-4,6-$(CH_3)_2$-C_6H_2
B-130	4-F-3,6-$(CH_3)_2$-C_6H_2
B-131	6-F-3,4-$(CH_3)_2$-C_6H_2
B-132	3-F-5,6-$(CH_3)_2$-C_6H_2
B-133	5-F-3,6-$(CH_3)_2$-C_6H_2
B-134	6-F-3,5-$(CH_3)_2$-C_6H_2
B-135	2-Cl-3,4-F_2-C_6H_2
B-136	3-Cl-2,4-F_2-C_6H_2
B-137	4-Cl-2,3-F_2-C_6H_2
B-138	2-Cl-3,5-F_2-C_6H_2
B-139	3-Cl-2,5-F_2-C_6H_2
B-140	5-Cl-2,3-F_2-C_6H_2
B-141	2-Cl-3,6-F_2-C_6H_2
B-142	3-Cl-2,6-F_2-C_6H_2
B-143	6-Cl-2,3-F_2-C_6H_2
B-144	2-Cl-4,5-F_2-C_6H_2
B-145	4-Cl-2,5-F_2-C_6H_2
B-146	5-Cl-2,4-F_2-C_6H_2
B-147	2-Cl-4,6-F_2-C_6H_2
B-148	4-Cl-2,6-F_2-C_6H_2
B-149	6-Cl-2,4-F_2-C_6H_2
B-150	3-Cl-4,5-F_2-C_6H_2
B-151	4-Cl-3,5-F_2-C_6H_2
B-152	5-Cl-3,4-F_2-C_6H_2
B-153	3-Cl-4,6-F_2-C_6H_2
B-154	4-Cl-3,6-F_2-C_6H_2
B-155	6-Cl-3,4-F_2-C_6H_2
B-156	3-Cl-5,6-F_2-C_6H_2
B-157	5-Cl-3,6-F_2-C_6H_2
B-158	6-Cl-3,5-F_2-C_6H_2

Nr.	$(R^c)_q$
B-159	2-F-3,4-Cl_2-C_6H_2
B-160	3-F-2,4-Cl_2-C_6H_2
B-161	4-F-2,3-Cl_2-C_6H_2
B-162	2-F-3,5-Cl_2-C_6H_2
B-163	3-F-2,5-Cl_2-C_6H_2
B-164	5-F-2,3-Cl_2-C_6H_2
B-165	2-F-3,6-Cl_2-C_6H_2
B-166	3-F-2,6-Cl_2-C_6H_2
B-167	6-F-2,3-Cl_2-C_6H_2
B-168	2-F-4,5-Cl_2-C_6H_2
B-169	4-F-2,5-Cl_2-C_6H_2
B-170	5-F-2,4-Cl_2-C_6H_2
B-171	2-F-4,6-Cl_2-C_6H_2
B-172	4-F-2,6-Cl_2-C_6H_2
B-173	6-F-2,4-Cl_2-C_6H_2
B-174	3-F-4,5-Cl_2-C_6H_2
B-175	4-F-3,5-Cl_2-C_6H_2
B-176	5-F-3,4-Cl_2-C_6H_2
B-177	3-F-4,6-Cl_2-C_6H_2
B-178	4-F-3,6-Cl_2-C_6H_2
B-179	6-F-3,4-Cl_2-C_6H_2
B-180	3-F-5,6-Cl_2-C_6H_2
B-181	5-F-3,6-Cl_2-C_6H_2
B-182	6-F-3,5-Cl_2-C_6H_2
B-183	2-CH_3-3,4-F_2-C_6H_2
B-184	3-CH_3-2,4-F_2-C_6H_2
B-185	4-CH_3-2,3-F_2-C_6H_2
B-186	2-CH_3-3,5-F_2-C_6H_2
B-187	3-CH_3-2,5-F_2-C_6H_2
B-188	5-CH_3-2,3-F_2-C_6H_2
B-189	2-CH_3-3,6-F_2-C_6H_2
B-190	3-CH_3-2,6-F_2-C_6H_2
B-191	6-CH_3-2,3-F_2-C_6H_2
B-192	2-CH_3-4,5-F_2-C_6H_2
B-193	4-CH_3-2,5-F_2-C_6H_2
B-194	5-CH_3-2,4-F_2-C_6H_2
B-195	2-CH_3-4,6-F_2-C_6H_2
B-196	4-CH_3-2,6-F_2-C_6H_2
B-197	6-CH_3-2,4-F_2-C_6H_2

Nr.	$(R^c)_q$
B-198	3-CH_3-4,5-F_2-C_6H_2
B-199	4-CH_3-3,5-F_2-C_6H_2
B-200	5-CH_3-3,4-F_2-C_6H_2
B-201	3-CH_3-4,6-F_2-C_6H_2
B-202	4-CH_3-3,6-F_2-C_6H_2
B-203	6-CH_3-3,4-F_2-C_6H_2
B-204	3-CH_3-5,6-F_2-C_6H_2
B-205	5-CH_3-3,6-F_2-C_6H_2
B-206	6-CH_3-3,5-F_2-C_6H_2
B-207	2-CH_3-3,4-Cl_2-C_6H_2
B-208	3-CH_3-2,4-Cl_2-C_6H_2
B-209	4-CH_3-2,3-Cl_2-C_6H_2
B-210	2-CH_3-3,5-Cl_2-C_6H_2
B-211	3-CH_3-2,5-Cl_2-C_6H_2
B-212	5-CH_3-2,3-Cl_2-C_6H_2
B-213	2-CH_3-3,6-Cl_2-C_6H_2
B-214	3-CH_3-2,6-Cl_2-C_6H_2
B-215	6-CH_3-2,3-Cl_2-C_6H_2
B-216	2-CH_3-4,5-Cl_2-C_6H_2
B-217	4-CH_3-2,5-Cl_2-C_6H_2
B-218	5-CH_3-2,4-Cl_2-C_6H_2
B-219	2-CH_3-4,6-Cl_2-C_6H_2
B-220	4-CH_3-2,6-Cl_2-C_6H_2
B-221	6-CH_3-2,4-Cl_2-C_6H_2
B-222	3-CH_3-4,5-Cl_2-C_6H_2
B-223	4-CH_3-3,5-Cl_2-C_6H_2
B-224	5-CH_3-3,4-Cl_2-C_6H_2
B-225	3-CH_3-4,6-Cl_2-C_6H_2
B-226	4-CH_3-3,6-Cl_2-C_6H_2
B-227	6-CH_3-3,4-Cl_2-C_6H_2
B-228	3-CH_3-5,6-Cl_2-C_6H_2
B-229	5-CH_3-3,6-Cl_2-C_6H_2
B-230	6-CH_3-3,5-Cl_2-C_6H_2

Table 281

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.



(I.6)

Table 282
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 283
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 284
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 285
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 286
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 287
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 288
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 289
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 290
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen, q is 2 and $(R^c)_q$ for a

compound corresponds in each case to a row of Table C.

Table 291
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 292
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 293
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 294
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 295
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 296
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 297
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 298
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 299
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 300
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 301
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 302
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 303
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 304
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 305
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 306
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 307
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 308
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 309
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is

hydrogen and R^2 is tert-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 310

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 311

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 312

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 313

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 314

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 315

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 316

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 317

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 318

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a

compound corresponds in each case to a row of Table C.

Table 319
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 320
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is oxygen, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 321
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 322
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 323
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 324
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 325
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 326
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 327
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 328
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 329
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 330
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 331
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 332
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 333
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 334
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 335
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 336
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 337
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is

hydrogen and R^2 is n-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 338

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 339

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 340

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 341

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 342

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 343

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 344

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 345

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 346

Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur, q is 2 and $(R^c)_q$

for a compound corresponds in each case to a row of Table C.

Table 347
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 348
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 349
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 350
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 351
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 352
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 353
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 354
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 355
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 356
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 357
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 358
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 359
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 360
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is sulfur, q is 2 and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 361
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 362
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 363
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 364
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 365
Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is

hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 366

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 367

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 368

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 369

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 370

Compounds of the formula I.6 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 371

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 372

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 373

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 374

Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ for a compound

corresponds in each case to a row of Table C.

Table 375
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 376
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 377
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 378
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 379
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 380
Compounds of the formula I.6 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 381
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 382
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 383
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 384
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 385
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 386
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 387
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 388
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 389
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 390
Compounds of the formula I.6 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 391
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 392
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 393
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is

hydrogen and R^2 is ethyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 394

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 395

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 396

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 397

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 398

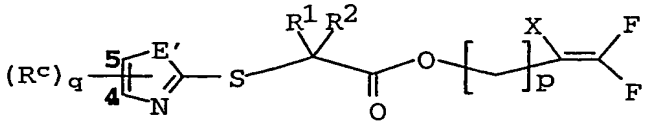
Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 399

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.

Table 400

Compounds of the formula I.6 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl, E' is NH and $(R^c)_q$ for a compound corresponds in each case to a row of Table C.



(I.6)

Table C

Nr.	R^c (4-Position)	R^c (5-Position)
C-1	CH_3	CH_3
C-2	CH_2CH_3	CH_3
C-3	$CH_2CH_2CH_3$	CH_3

Nr.	R^c (4-Position)	R^c (5-Position)
C-4	$CH(CH_3)_2$	CH_3
C-5	$C(CH_3)_3$	CH_3
C-6	Cl	CH_3
C-7	Br	CH_3
C-8	CH_2OCH_3	CH_3
C-9	$COOCH_3$	CH_3
C-10	C_6H_5	CH_3
C-11	2-F-C_6H_4	CH_3
C-12	3-F-C_6H_4	CH_3
C-13	4-F-C_6H_4	CH_3
C-14	2-Cl-C_6H_4	CH_3
C-15	3-Cl-C_6H_4	CH_3
C-16	4-Cl-C_6H_4	CH_3
C-17	2-CH_3-C_6H_4	CH_3
C-18	3-CH_3-C_6H_4	CH_3
C-19	4-CH_3-C_6H_4	CH_3
C-20	CH_3	CH_2CH_3
C-21	CH_2CH_3	CH_2CH_3
C-22	$CH_2CH_2CH_3$	CH_2CH_3
C-23	$CH(CH_3)_2$	CH_2CH_3
C-24	$C(CH_3)_3$	CH_2CH_3
C-25	Cl	CH_2CH_3
C-26	Br	CH_2CH_3
C-27	CH_2OCH_3	CH_2CH_3
C-28	$COOCH_3$	CH_2CH_3
C-29	C_6H_5	CH_2CH_3
C-30	2-F-C_6H_4	CH_2CH_3
C-31	3-F-C_6H_4	CH_2CH_3
C-32	4-F-C_6H_4	CH_2CH_3
C-33	2-Cl-C_6H_4	CH_2CH_3
C-34	3-Cl-C_6H_4	CH_2CH_3
C-35	4-Cl-C_6H_4	CH_2CH_3
C-36	2-CH_3-C_6H_4	CH_2CH_3
C-37	3-CH_3-C_6H_4	CH_2CH_3
C-38	4-CH_3-C_6H_4	CH_2CH_3
C-39	CH_3	$CH_2CH_2CH_3$
C-40	CH_2CH_3	$CH_2CH_2CH_3$
C-41	$CH_2CH_2CH_3$	$CH_2CH_2CH_3$
C-42	$CH(CH_3)_2$	$CH_2CH_2CH_3$

Nr.	R^c (4-Position)	R^c (5-Position)
C-43	$C(CH_3)_3$	$CH_2CH_2CH_3$
C-44	Cl	$CH_2CH_2CH_3$
C-45	Br	$CH_2CH_2CH_3$
C-46	CH_2OCH_3	$CH_2CH_2CH_3$
C-47	$COOCH_3$	$CH_2CH_2CH_3$
C-48	C_6H_5	$CH_2CH_2CH_3$
C-49	2-F-C_6H_4	$CH_2CH_2CH_3$
C-50	3-F-C_6H_4	$CH_2CH_2CH_3$
C-51	4-F-C_6H_4	$CH_2CH_2CH_3$
C-52	2-Cl-C_6H_4	$CH_2CH_2CH_3$
C-53	3-Cl-C_6H_4	$CH_2CH_2CH_3$
C-54	4-Cl-C_6H_4	$CH_2CH_2CH_3$
C-55	2-CH_3-C_6H_4	$CH_2CH_2CH_3$
C-56	3-CH_3-C_6H_4	$CH_2CH_2CH_3$
C-57	4-CH_3-C_6H_4	$CH_2CH_2CH_3$
C-58	CH_3	$CH(CH_3)_2$
C-59	CH_2CH_3	$CH(CH_3)_2$
C-60	$CH_2CH_2CH_3$	$CH(CH_3)_2$
C-61	$CH(CH_3)_2$	$CH(CH_3)_2$
C-62	$C(CH_3)_3$	$CH(CH_3)_2$
C-63	Cl	$CH(CH_3)_2$
C-64	Br	$CH(CH_3)_2$
C-65	CH_2OCH_3	$CH(CH_3)_2$
C-66	$COOCH_3$	$CH(CH_3)_2$
C-67	C_6H_5	$CH(CH_3)_2$
C-68	2-F-C_6H_4	$CH(CH_3)_2$
C-69	3-F-C_6H_4	$CH(CH_3)_2$
C-70	4-F-C_6H_4	$CH(CH_3)_2$
C-71	2-Cl-C_6H_4	$CH(CH_3)_2$
C-72	3-Cl-C_6H_4	$CH(CH_3)_2$
C-73	4-Cl-C_6H_4	$CH(CH_3)_2$
C-74	2-CH_3-C_6H_4	$CH(CH_3)_2$
C-75	3-CH_3-C_6H_4	$CH(CH_3)_2$
C-76	4-CH_3-C_6H_4	$CH(CH_3)_2$
C-77	CH_3	$C(CH_3)_3$
C-78	CH_2CH_3	$C(CH_3)_3$
C-79	$CH_2CH_2CH_3$	$C(CH_3)_3$
C-80	$CH(CH_3)_2$	$C(CH_3)_3$
C-81	$C(CH_3)_3$	$C(CH_3)_3$

Nr.	R^c (4-Position)	R^c (5-Position)
C-82	Cl	$C(CH_3)_3$
C-83	Br	$C(CH_3)_3$
C-84	CH_2OCH_3	$C(CH_3)_3$
C-85	$COOCH_3$	$C(CH_3)_3$
C-86	C_6H_5	$C(CH_3)_3$
C-87	$2\text{-}F\text{-}C_6H_4$	$C(CH_3)_3$
C-88	$3\text{-}F\text{-}C_6H_4$	$C(CH_3)_3$
C-89	$4\text{-}F\text{-}C_6H_4$	$C(CH_3)_3$
C-90	$2\text{-}Cl\text{-}C_6H_4$	$C(CH_3)_3$
C-91	$3\text{-}Cl\text{-}C_6H_4$	$C(CH_3)_3$
C-92	$4\text{-}Cl\text{-}C_6H_4$	$C(CH_3)_3$
C-93	$2\text{-}CH_3\text{-}C_6H_4$	$C(CH_3)_3$
C-94	$3\text{-}CH_3\text{-}C_6H_4$	$C(CH_3)_3$
C-95	$4\text{-}CH_3\text{-}C_6H_4$	$C(CH_3)_3$
C-96	CH_3	Cl
C-97	CH_2CH_3	Cl
C-98	$CH_2CH_2CH_3$	Cl
C-99	$CH(CH_3)_2$	Cl
C-100	$C(CH_3)_3$	Cl
C-101	Cl	Cl
C-102	Br	Cl
C-103	CH_2OCH_3	Cl
C-104	$COOCH_3$	Cl
C-105	C_6H_5	Cl
C-106	$2\text{-}F\text{-}C_6H_4$	Cl
C-107	$3\text{-}F\text{-}C_6H_4$	Cl
C-108	$4\text{-}F\text{-}C_6H_4$	Cl
C-109	$2\text{-}Cl\text{-}C_6H_4$	Cl
C-110	$3\text{-}Cl\text{-}C_6H_4$	Cl
C-111	$4\text{-}Cl\text{-}C_6H_4$	Cl
C-112	$2\text{-}CH_3\text{-}C_6H_4$	Cl
C-113	$3\text{-}CH_3\text{-}C_6H_4$	Cl
C-114	$4\text{-}CH_3\text{-}C_6H_4$	Cl
C-115	CH_3	Br
C-116	CH_2CH_3	Br
C-117	$CH_2CH_2CH_3$	Br
C-118	$CH(CH_3)_2$	Br
C-119	$C(CH_3)_3$	Br
C-120	Cl	Br

Nr.	R^c (4-Position)	R^c (5-Position)
C-121	Br	Br
C-122	CH_2OCH_3	Br
C-123	$COOCH_3$	Br
C-124	C_6H_5	Br
C-125	2-F-C_6H_4	Br
C-126	3-F-C_6H_4	Br
C-127	4-F-C_6H_4	Br
C-128	2-Cl-C_6H_4	Br
C-129	3-Cl-C_6H_4	Br
C-130	4-Cl-C_6H_4	Br
C-131	2-CH_3-C_6H_4	Br
C-132	3-CH_3-C_6H_4	Br
C-133	4-CH_3-C_6H_4	Br
C-134	CH_3	CH_2OCH_3
C-135	CH_2CH_3	CH_2OCH_3
C-136	$CH_2CH_2CH_3$	CH_2OCH_3
C-137	$CH(CH_3)_2$	CH_2OCH_3
C-138	$C(CH_3)_3$	CH_2OCH_3
C-139	Cl	CH_2OCH_3
C-140	Br	CH_2OCH_3
C-141	CH_2OCH_3	CH_2OCH_3
C-142	$COOCH_3$	CH_2OCH_3
C-143	C_6H_5	CH_2OCH_3
C-144	2-F-C_6H_4	CH_2OCH_3
C-145	3-F-C_6H_4	CH_2OCH_3
C-146	4-F-C_6H_4	CH_2OCH_3
C-147	2-Cl-C_6H_4	CH_2OCH_3
C-148	3-Cl-C_6H_4	CH_2OCH_3
C-149	4-Cl-C_6H_4	CH_2OCH_3
C-150	2-CH_3-C_6H_4	CH_2OCH_3
C-151	3-CH_3-C_6H_4	CH_2OCH_3
C-152	4-CH_3-C_6H_4	CH_2OCH_3
C-153	CH_3	$COOCH_3$
C-154	CH_2CH_3	$COOCH_3$
C-155	$CH_2CH_2CH_3$	$COOCH_3$
C-156	$CH(CH_3)_2$	$COOCH_3$
C-157	$C(CH_3)_3$	$COOCH_3$
C-158	Cl	$COOCH_3$
C-159	Br	$COOCH_3$

Nr.	R^c (4-Position)	R^c (5-Position)
C-160	CH_2OCH_3	$COOCH_3$
C-161	$COOCH_3$	$COOCH_3$
C-162	C_6H_5	$COOCH_3$
C-163	2-F-C_6H_4	$COOCH_3$
C-164	3-F-C_6H_4	$COOCH_3$
C-165	4-F-C_6H_4	$COOCH_3$
C-166	2-Cl-C_6H_4	$COOCH_3$
C-167	3-Cl-C_6H_4	$COOCH_3$
C-168	4-Cl-C_6H_4	$COOCH_3$
C-169	2-CH_3-C_6H_4	$COOCH_3$
C-170	3-CH_3-C_6H_4	$COOCH_3$
C-171	4-CH_3-C_6H_4	$COOCH_3$
C-172	CH_3	C_6H_5
C-173	CH_2CH_3	C_6H_5
C-174	$CH_2CH_2CH_3$	C_6H_5
C-175	$CH(CH_3)_2$	C_6H_5
C-176	$C(CH_3)_3$	C_6H_5
C-177	Cl	C_6H_5
C-178	Br	C_6H_5
C-179	CH_2OCH_3	C_6H_5
C-180	$COOCH_3$	C_6H_5
C-181	C_6H_5	C_6H_5
C-182	2-F-C_6H_4	C_6H_5
C-183	3-F-C_6H_4	C_6H_5
C-184	4-F-C_6H_4	C_6H_5
C-185	2-Cl-C_6H_4	C_6H_5
C-186	3-Cl-C_6H_4	C_6H_5
C-187	4-Cl-C_6H_4	C_6H_5
C-188	2-CH_3-C_6H_4	C_6H_5
C-189	3-CH_3-C_6H_4	C_6H_5
C-190	4-CH_3-C_6H_4	C_6H_5
C-191	CH_3	2-F-C_6H_4
C-192	CH_2CH_3	2-F-C_6H_4
C-193	$CH_2CH_2CH_3$	2-F-C_6H_4
C-194	$CH(CH_3)_2$	2-F-C_6H_4
C-195	$C(CH_3)_3$	2-F-C_6H_4
C-196	Cl	2-F-C_6H_4
C-197	Br	2-F-C_6H_4
C-198	CH_2OCH_3	2-F-C_6H_4

Nr.	R^c (4-Position)	R^c (5-Position)
C-199	$COOCH_3$	2-F-C_6H_4
C-200	C_6H_5	2-F-C_6H_4
C-201	2-F-C_6H_4	2-F-C_6H_4
C-202	3-F-C_6H_4	2-F-C_6H_4
C-203	4-F-C_6H_4	2-F-C_6H_4
C-204	2-Cl-C_6H_4	2-F-C_6H_4
C-205	3-Cl-C_6H_4	2-F-C_6H_4
C-206	4-Cl-C_6H_4	2-F-C_6H_4
C-207	2-CH_3-C_6H_4	2-F-C_6H_4
C-208	3-CH_3-C_6H_4	2-F-C_6H_4
C-209	4-CH_3-C_6H_4	2-F-C_6H_4
C-210	CH_3	3-F-C_6H_4
C-211	CH_2CH_3	3-F-C_6H_4
C-212	$CH_2CH_2CH_3$	3-F-C_6H_4
C-213	$CH(CH_3)_2$	3-F-C_6H_4
C-214	$C(CH_3)_3$	3-F-C_6H_4
C-215	Cl	3-F-C_6H_4
C-216	Br	3-F-C_6H_4
C-217	CH_2OCH_3	3-F-C_6H_4
C-218	$COOCH_3$	3-F-C_6H_4
C-219	C_6H_5	3-F-C_6H_4
C-220	2-F-C_6H_4	3-F-C_6H_4
C-221	3-F-C_6H_4	3-F-C_6H_4
C-222	4-F-C_6H_4	3-F-C_6H_4
C-223	2-Cl-C_6H_4	3-F-C_6H_4
C-224	3-Cl-C_6H_4	3-F-C_6H_4
C-225	4-Cl-C_6H_4	3-F-C_6H_4
C-226	2-CH_3-C_6H_4	3-F-C_6H_4
C-227	3-CH_3-C_6H_4	3-F-C_6H_4
C-228	4-CH_3-C_6H_4	3-F-C_6H_4
C-229	CH_3	4-F-C_6H_4
C-230	CH_2CH_3	4-F-C_6H_4
C-231	$CH_2CH_2CH_3$	4-F-C_6H_4
C-232	$CH(CH_3)_2$	4-F-C_6H_4
C-233	$C(CH_3)_3$	4-F-C_6H_4
C-234	Cl	4-F-C_6H_4
C-235	Br	4-F-C_6H_4
C-236	CH_2OCH_3	4-F-C_6H_4
C-237	$COOCH_3$	4-F-C_6H_4

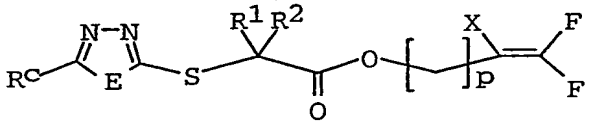
Nr.	R^c (4-Position)	R^c (5-Position)
C-238	C_6H_5	4-F-C_6H_4
C-239	2-F-C_6H_4	4-F-C_6H_4
C-240	3-F-C_6H_4	4-F-C_6H_4
C-241	4-F-C_6H_4	4-F-C_6H_4
C-242	2-Cl-C_6H_4	4-F-C_6H_4
C-243	3-Cl-C_6H_4	4-F-C_6H_4
C-244	4-Cl-C_6H_4	4-F-C_6H_4
C-245	2-CH_3-C_6H_4	4-F-C_6H_4
C-246	3-CH_3-C_6H_4	4-F-C_6H_4
C-247	4-CH_3-C_6H_4	4-F-C_6H_4
C-248	CH_3	2-Cl-C_6H_4
C-249	CH_2CH_3	2-Cl-C_6H_4
C-250	$CH_2CH_2CH_3$	2-Cl-C_6H_4
C-251	$CH(CH_3)_2$	2-Cl-C_6H_4
C-252	$C(CH_3)_3$	2-Cl-C_6H_4
C-253	Cl	2-Cl-C_6H_4
C-254	Br	2-Cl-C_6H_4
C-255	CH_2OCH_3	2-Cl-C_6H_4
C-256	$COOCH_3$	2-Cl-C_6H_4
C-257	C_6H_5	2-Cl-C_6H_4
C-258	2-F-C_6H_4	2-Cl-C_6H_4
C-259	3-F-C_6H_4	2-Cl-C_6H_4
C-260	4-F-C_6H_4	2-Cl-C_6H_4
C-261	2-Cl-C_6H_4	2-Cl-C_6H_4
C-262	3-Cl-C_6H_4	2-Cl-C_6H_4
C-263	4-Cl-C_6H_4	2-Cl-C_6H_4
C-264	2-CH_3-C_6H_4	2-Cl-C_6H_4
C-265	3-CH_3-C_6H_4	2-Cl-C_6H_4
C-266	4-CH_3-C_6H_4	2-Cl-C_6H_4
C-267	CH_3	3-Cl-C_6H_4
C-268	CH_2CH_3	3-Cl-C_6H_4
C-269	$CH_2CH_2CH_3$	3-Cl-C_6H_4
C-270	$CH(CH_3)_2$	3-Cl-C_6H_4
C-271	$C(CH_3)_3$	3-Cl-C_6H_4
C-272	Cl	3-Cl-C_6H_4
C-273	Br	3-Cl-C_6H_4
C-274	CH_2OCH_3	3-Cl-C_6H_4
C-275	$COOCH_3$	3-Cl-C_6H_4
C-276	C_6H_5	3-Cl-C_6H_4

Nr.	R^c (4-Position)	R^c (5-Position)
C-277	2-F-C_6H_4	3-Cl-C_6H_4
C-278	3-F-C_6H_4	3-Cl-C_6H_4
C-279	4-F-C_6H_4	3-Cl-C_6H_4
C-280	2-Cl-C_6H_4	3-Cl-C_6H_4
C-281	3-Cl-C_6H_4	3-Cl-C_6H_4
C-282	4-Cl-C_6H_4	3-Cl-C_6H_4
C-283	2-CH_3-C_6H_4	3-Cl-C_6H_4
C-284	3-CH_3-C_6H_4	3-Cl-C_6H_4
C-285	4-CH_3-C_6H_4	3-Cl-C_6H_4
C-286	CH_3	4-Cl-C_6H_4
C-287	CH_2CH_3	4-Cl-C_6H_4
C-288	$CH_2CH_2CH_3$	4-Cl-C_6H_4
C-289	$CH(CH_3)_2$	4-Cl-C_6H_4
C-290	$C(CH_3)_3$	4-Cl-C_6H_4
C-291	Cl	4-Cl-C_6H_4
C-292	Br	4-Cl-C_6H_4
C-293	CH_2OCH_3	4-Cl-C_6H_4
C-294	$COOCH_3$	4-Cl-C_6H_4
C-295	C_6H_5	4-Cl-C_6H_4
C-296	2-F-C_6H_4	4-Cl-C_6H_4
C-297	3-F-C_6H_4	4-Cl-C_6H_4
C-298	4-F-C_6H_4	4-Cl-C_6H_4
C-299	2-Cl-C_6H_4	4-Cl-C_6H_4
C-300	3-Cl-C_6H_4	4-Cl-C_6H_4
C-301	4-Cl-C_6H_4	4-Cl-C_6H_4
C-302	2-CH_3-C_6H_4	4-Cl-C_6H_4
C-303	3-CH_3-C_6H_4	4-Cl-C_6H_4
C-304	4-CH_3-C_6H_4	4-Cl-C_6H_4
C-305	CH_3	2-CH_3-C_6H_4
C-306	CH_2CH_3	2-CH_3-C_6H_4
C-307	$CH_2CH_2CH_3$	2-CH_3-C_6H_4
C-308	$CH(CH_3)_2$	2-CH_3-C_6H_4
C-309	$C(CH_3)_3$	2-CH_3-C_6H_4
C-310	Cl	2-CH_3-C_6H_4
C-311	Br	2-CH_3-C_6H_4
C-312	CH_2OCH_3	2-CH_3-C_6H_4
C-313	$COOCH_3$	2-CH_3-C_6H_4
C-314	C_6H_5	2-CH_3-C_6H_4
C-315	2-F-C_6H_4	2-CH_3-C_6H_4

Nr.	R^c (4-Position)	R^c (5-Position)
C-316	3-F-C_6H_4	2-CH_3-C_6H_4
C-317	4-F-C_6H_4	2-CH_3-C_6H_4
C-318	2-Cl-C_6H_4	2-CH_3-C_6H_4
C-319	3-Cl-C_6H_4	2-CH_3-C_6H_4
C-320	4-Cl-C_6H_4	2-CH_3-C_6H_4
C-321	2-CH_3-C_6H_4	2-CH_3-C_6H_4
C-322	3-CH_3-C_6H_4	2-CH_3-C_6H_4
C-323	4-CH_3-C_6H_4	2-CH_3-C_6H_4
C-324	CH_3	3-CH_3-C_6H_4
C-325	CH_2CH_3	3-CH_3-C_6H_4
C-326	$CH_2CH_2CH_3$	3-CH_3-C_6H_4
C-327	$CH(CH_3)_2$	3-CH_3-C_6H_4
C-328	$C(CH_3)_3$	3-CH_3-C_6H_4
C-329	Cl	3-CH_3-C_6H_4
C-330	Br	3-CH_3-C_6H_4
C-331	CH_2OCH_3	3-CH_3-C_6H_4
C-332	$COOCH_3$	3-CH_3-C_6H_4
C-333	C_6H_5	3-CH_3-C_6H_4
C-334	2-F-C_6H_4	3-CH_3-C_6H_4
C-335	3-F-C_6H_4	3-CH_3-C_6H_4
C-336	4-F-C_6H_4	3-CH_3-C_6H_4
C-337	2-Cl-C_6H_4	3-CH_3-C_6H_4
C-338	3-Cl-C_6H_4	3-CH_3-C_6H_4
C-339	4-Cl-C_6H_4	3-CH_3-C_6H_4
C-340	2-CH_3-C_6H_4	3-CH_3-C_6H_4
C-341	3-CH_3-C_6H_4	3-CH_3-C_6H_4
C-342	4-CH_3-C_6H_4	3-CH_3-C_6H_4
C-343	CH_3	4-CH_3-C_6H_4
C-344	CH_2CH_3	4-CH_3-C_6H_4
C-345	$CH_2CH_2CH_3$	4-CH_3-C_6H_4
C-346	$CH(CH_3)_2$	4-CH_3-C_6H_4
C-347	$C(CH_3)_3$	4-CH_3-C_6H_4
C-348	Cl	4-CH_3-C_6H_4
C-349	Br	4-CH_3-C_6H_4
C-350	CH_2OCH_3	4-CH_3-C_6H_4
C-351	$COOCH_3$	4-CH_3-C_6H_4
C-352	C_6H_5	4-CH_3-C_6H_4
C-353	2-F-C_6H_4	4-CH_3-C_6H_4
C-354	3-F-C_6H_4	4-CH_3-C_6H_4

Nr.	R^c (4-Position)	R^c (5-Position)
C-355	4-F-C_6H_4	4-CH_3-C_6H_4
C-356	2-Cl-C_6H_4	4-CH_3-C_6H_4
C-357	3-Cl-C_6H_4	4-CH_3-C_6H_4
C-358	4-Cl-C_6H_4	4-CH_3-C_6H_4
C-359	2-CH_3-C_6H_4	4-CH_3-C_6H_4
C-360	3-CH_3-C_6H_4	4-CH_3-C_6H_4
C-361	4-CH_3-C_6H_4	4-CH_3-C_6H_4

Table 401
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 and R^2 are hydrogen and the combination of E and R^c for a compound corresponds in each case to a row of Table D.



(I.7)

Table 402
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is methyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 403
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is ethyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 404
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 405
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is n-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 406
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 407
Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is

hydrogen and R^2 is n-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 408

Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is i-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 409

Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is tert-butyl and the combination of E and R^b for a compound corresponds in each case to a row of Table D.

Table 410

Compounds of the formula I.7 wherein X is hydrogen, p is 2, R^1 is hydrogen and R^2 is phenyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 411

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 and R^2 are hydrogen and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 412

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is methyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 413

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is ethyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 414

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 415

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 416

Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of E and R^c

for a compound corresponds in each case to a row of Table D.

Table 417
Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is n-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 418
Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is i-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 419
Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is tert-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 420
Compounds of the formula I.7 wherein X is hydrogen, p is 4, R^1 is hydrogen and R^2 is phenyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 421
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 and R^2 are hydrogen and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 422
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is methyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 423
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is ethyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 424
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 425
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 426
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 427
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is n-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 428
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is i-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 429
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is tert-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 430
Compounds of the formula I.7 wherein X is fluorine, p is 2, R^1 is hydrogen and R^2 is phenyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 431
Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 and R^2 are hydrogen and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 432
Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is methyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 433
Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is ethyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 434
Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 435
Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is

hydrogen and R^2 is n-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 436

Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is cyclo-propyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 437

Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is n-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 438

Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is i-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

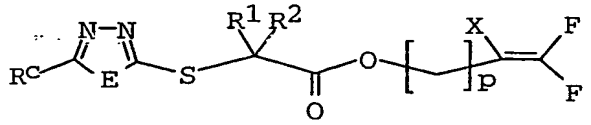
Table 439

Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is tert-butyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table 440

Compounds of the formula I.7 wherein X is fluorine, p is 4, R^1 is hydrogen and R^2 is phenyl and the combination of E and R^c for a compound corresponds in each case to a row of Table D.

Table D



(I.7)

Nr.	E	R^c
D-1	O	-
D-2	O	CH_3
D-3	O	CH_2CH_3
D-4	O	$CH_2CH_2CH_3$
D-5	O	$CH(CH_3)_2$
D-6	O	$CH_2CH_2CH_2CH_3$
D-7	O	$CH_2CH(CH_3)_2$
D-8	O	$C(CH_3)_3$
D-9	O	F
D-10	O	Cl
D-11	O	Br

Nr.	E	R^c
D-12	O	I
D-13	O	CF_3
D-14	O	OCF_3
D-15	O	OCH_3
D-16	O	OCH_2CH_3
D-17	O	$OCH_2CH_2CH_3$
D-18	O	$OCH(CH_3)_2$
D-19	O	NO_2
D-20	O	NH_2
D-21	O	$NH(C=O)CH_3$
D-22	S	-
D-23	S	CH_3
D-24	S	CH_2CH_3
D-25	S	$CH_2CH_2CH_3$
D-26	S	$CH(CH_3)_2$
D-27	S	$CH_2CH_2CH_2CH_3$
D-28	S	$CH_2CH(CH_3)_2$
D-29	S	$C(CH_3)_3$
D-30	S	F
D-31	S	Cl
D-32	S	Br
D-33	S	I
D-34	S	CF_3
D-35	S	OCF_3
D-36	S	OCH_3
D-37	S	OCH_2CH_3
D-38	S	$OCH_2CH_2CH_3$
D-39	S	$OCH(CH_3)_2$
D-40	S	NO_2
D-41	S	NH_2
D-42	S	$NH(C=O)CH_3$

The compounds of the formula I are suitable for efficiently controlling nematodes, insects, and arachnids in crop protection. In particular, they are suitable for controlling the following animal pests:

insects from the order of the lepidopterans (*Lepidoptera*), for example *Agrotis ypsilon, Agrotis segetum, Alabama argillacea, Anticarsia gemmatalis, Argyresthia conjugella, Autographa gamma, Bupalus piniarius, Cacoecia murinana, Capua reticulana, Cheimato-*

bia brumata, Choristoneura fumiferana, Choristoneura occidentalis, Cirphis unipuncta, Cydia pomonella, Dendrolimus pini, Diaphania nitidalis, Diatraea grandiosella, Earias insulana, Elasmopalpus lignosellus, Eupoecilia ambiguella, Evetria bouliana, Feltia subterranea, Galleria mellonella, Grapholitha funebrana, Grapholitha molesta, Heliothis armigera, Heliothis virescens, Heliothis zea, Hellula undalis, Hibernia defoliaria, Hyphantria cunea, Hyponomeuta malinellus, Keiferia lycopersicella, Lambdina fiscellaria, Laphygma exigua, Leucoptera coffeella, Leucoptera scitella, Lithocolletis blancardella, Lobesia botrana, Loxostege sticticalis, Lymantria dispar, Lymantria monacha, Lyonetia clerkella, Malacosoma neustria, Mamestra brassicae, Orgyia pseudotsugata, Ostrinia nubilalis, Panolis flammea, Pectinophora gossypiella, Peridroma saucia, Phalera bucephala, Phthorimaea operculella, Phyllocnistis citrella, Pieris brassicae, Plathypena scabra, Plutella xylostella, Pseudoplusia includens, Rhyacionia frustrana, Scrobipalpula absoluta, Sitotroga cerealella, Sparganothis pilleriana, Spodoptera frugiperda, Spodoptera littoralis, Spodoptera litura, Thaumatopoea pityocampa, Tortrix viridana, Trichoplusia ni and *Zeiraphera canadensis*,

beetles (*Coleoptera*), for example *Agrilus sinuatus, Agriotes lineatus, Agriotes obscurus, Amphimallus solstitialis, Anisandrus dispar, Anthonomus grandis, Anthonomus pomorum, Atomaria linearis, Blastophagus piniperda, Blitophaga undata, Bruchus rufimanus, Bruchus pisorum, Bruchus lentis, Byctiscus betulae, Cassida nebulosa, Cerotoma trifurcata, Ceuthorrhynchus assimilis, Ceuthorrhynchus napi, Chaetocnema tibialis, Conoderus vespertinus, Crioceris asparagi, Diabrotica longicornis, Diabrotica 12-punctata, Diabrotica virgifera, Epilachna varivestis, Epitrix hirtipennis, Eutinobothrus brasiliensis, Hylobius abietis, Hypera brunneipennis, Hypera postica, Ips typographus, Lema bilineata, Lema melanopus, Leptinotarsa decemlineata, Limonius californicus, Lissorhoptrus oryzophilus, Melanotus communis, Meligethes aeneus, Melolontha hippocastani, Melolontha melolontha, Oulema oryzae, Ortiorrhynchus sulcatus, Otiorrhynchus ovatus, Phaedon cochleariae, Phyllotreta chrysocephala, Phyllophaga sp., Phyllopertha horticola, Phyllotreta nemorum, Phyllotreta striolata, Popillia japonica, Sitona lineatus* and *Sitophilus granaria*,

dipterans (*Diptera*), for example *Aedes aegypti, Aedes vexans, Anastrepha ludens, Anopheles maculipennis, Ceratitis capitata, Chrysomya bezziana, Chrysomya hominivorax, Chrysomya macellaria, Contarinia sorghicola, Cordylobia anthropophaga, Culex pipiens, Dacus cucurbitae, Dacus oleae, Dasineura brassicae, Fannia canicularis, Gasterophilus intestinalis, Glossina morsitans, Haematobia irritans, Haplodiplosis equestris, Hylemyia platura, Hypoder-*

ma lineata, Liriomyza sativae, Liriomyza trifolii, Lucilia caprina, Lucilia cuprina, Lucilia sericata, Lycoria pectoralis, Mayetiola destructor, Musca domestica, Muscina stabulans, Oestrus ovis, Oscinella frit, Pegomya hysocyami, Phorbia antiqua, Phorbia brassicae, Phorbia coarctata, Rhagoletis cerasi, Rhagoletis pomonella, Tabanus bovinus, Tipula oleracea and *Tipula paludosa*,

thrips (*Thysanoptera*), e.g. *Frankliniella fusca, Frankliniella occidentalis, Frankliniella tritici, Scirtothrips citri, Thrips oryzae, Thrips palmi* and *Thrips tabaci*,

hymenopterans (*Hymenoptera*), e.g. *Athalia rosae, Atta cephalotes, Atta sexdens, Atta texana, Hoplocampa minuta, Hoplocampa testudinea, Monomorium pharaonis, Solenopsis geminata* and *Solenopsis invicta*,

heteropterans (*Heteroptera*), e.g. *Acrosternum hilare, Blissus leucopterus, Cyrtopeltis notatus, Dysdercus cingulatus, Dysdercus intermedius, Eurygaster integriceps, Euschistus impictiventris, Leptoglossus phyllopus, Lygus lineolaris, Lygus pratensis, Nezara viridula, Piesma quadrata, Solubea insularis* and *Thyanta perditor*,

homopterans (*Homoptera*), e.g. *Acyrthosiphon onobrychis, Adelges laricis, Aphidula nasturtii, Aphis fabae, Aphis pomi, Aphis sambuci, Brachycaudus cardui, Brevicoryne brassicae, Cerosipha gossypii, Dreyfusia nordmannianae, Dreyfusia piceae, Dysaphis radicola, Dysaulacorthum pseudosolani, Empoasca fabae, Macrosiphum avenae, Macrosiphum euphorbiae, Macrosiphon rosae, Megoura viciae, Metopolophium dirhodum, Myzodes persicae, Myzus cerasi, Nilaparvata lugens, Pemphigus bursarius, Perkinsiella saccharicida, Phorodon humuli, Psylla mali, Psylla piri, Rhopalomyzus ascalonicus, Rhopalosiphum maidis, Sappaphis mala, Sappaphis mali, Schizaphis graminum, Schizoneura lanuginosa, Trialeurodes vaporariorum* and *Viteus vitifolii*,

termites (*Isoptera*), e.g. *Calotermes flavicollis, Leucotermes flavipes, Reticulitermes lucifugus* und *Termes natalensis*,

orthopterans (*Orthoptera*), e.g. *Acheta domestica, Blatta orientalis, Blattella germanica, Forficula auricularia, Gryllotalpa gryllotalpa, Locusta migratoria, Melanoplus bivittatus, Melanoplus femur-rubrum, Melanoplus mexicanus, Melanoplus sanguinipes, Melanoplus spretus, Nomadacris septemfasciata, Periplaneta americana, Schistocerca americana, Schistocerca peregrina, Stauronotus maroccanus* and *Tachycines asynamorus*,

Arachnoidea, such as arachnids (*Acarina*), e.g. *Amblyomma americanum, Amblyomma variegatum, Argas persicus, Boophilus annulatus, Boophilus decoloratus, Boophilus microplus, Brevipalpus phoenicis, Bryobia praetiosa, Dermacentor silvarum, Eotetranychus carpini, Eriophyes sheldoni, Hyalomma truncatum, Ixodes ricinus, Ixodes rubicundus, Ornithodorus moubata, Otobius megnini, Paratetranychus pilosus, Dermanyssus gallinae, Phyllocoptruta oleivora, Polyphagotarsonemus latus, Psoroptes ovis, Rhipicephalus appendiculatus, Rhipicephalus evertsi, Sarcoptes scabiei, Tetranychus cinnabarinus, Tetranychus kanzawai, Tetranychus pacificus, Tetranychus telarius* and *Tetranychus urticae*,

Nematodes, especially plant parasitic nematodes such as root knot nematodes, *Meloidogyne hapla, Meloidogyne incognita, Meloidogyne javanica*, and other *Meloidogyne* species; cyst-forming nematodes, *Globodera rostochiensis* and other *Globodera* species; *Heterodera avenae, Heterodera glycines, Heterodera schachtii, Heterodera trifolii*, and other *Heterodera* species; Seed gall nematodes, *Anguina species; Stem* and foliar nematodes, *Aphelenchoides species; Sting nematodes, Belonolaimus longicaudatus* and other *Belonolaimus* species; Pine nematodes, *Bursaphelenchus xylophilus* and other *Bursaphelenchus* species; Ring nematodes, *Criconema* species, *Criconemella* species, *Criconemoides* species, *Mesocriconema* species; Stem and bulb nematodes, *Ditylenchus destructor, Ditylenchus dipsaci* and other *Ditylenchus* species; Awl nematodes, *Dolichodorus* species; Spiral nematodes, *Heliocotylenchus multicinctus* and other *Helicotylenchus* species; Sheath and sheathoid nematodes, *Hemicycliophora* species and *Hemicriconemoides* species; *Hirshmanniella* species; Lance nematodes, *Hoploaimus* species; false root-knot nematodes, *Nacobbus* species; Needle nematodes, *Longidorus elongatus* and other *Longidorus* species; Pin nematodes, *Paratylenchus* species; *Lesion* nematodes, *Pratylenchus neglectus, Pratylenchus penetrans, Pratylenchus curvitatus, Pratylenchus goodeyi* and other *Pratylenchus* species; Burrowing nematodes, *Radopholus similis* and other *Radopholus* species; *Reniform nematodes, Rotylenchus robustus* and other *Rotylenchus* species; *Scutellonema* species; Stubby root nematodes, *Trichodorus primitivus* and other *Trichodorus* species, *Paratrichodorus* species; Stunt nematodes, *Tylenchorhynchus claytoni, Tylenchorhynchus dubius* and other *Tylenchorhynchus* species; *Citrus* nematodes, *Tylenchulus* species; Dagger nematodes, *Xiphinema* species; and other plant parasitic nematode species.

The compounds of formula I are especially useful for the control of nematodes.

The compounds I also are suitable for use as fungicides. They exhibit activity against a broad spectrum of phytopathogenic fungi, in particular from the classes of the *Ascomycetes, Deuteromycetes, Phycomycetes* and *Basidiomycetes*. Some of them act systemically, and they can be employed in crop protection as foliar- and soil-acting fungicides.

They are especially important for controlling a large number of fungi on a variety of crop plants such as wheat, rye, barley, oats, rice, maize, grass, bananas, cotton, soya, coffee, sugar cane, grapevines, fruit species, ornamentals and vegetables such as cucumbers, beans, tomatoes, potatoes and cucurbits, and on the seeds of these plants. Specifically, they are suitable for controlling the following plant diseases:

Alternaria species on vegetables and fruit, *Botrytis cinerea* (gray mold) on strawberries, vegetables, ornamentals and grapevines, *Cercospora arachidicola* on peanuts, *Erysiphe cichoracearum* and *Sphaerotheca fuliginea* on cucurbits, *Erysiphe graminis* (powdery mildew) on cereals, *Fusarium* and *Verticillium* species on various plants, *Helminthosporium* species on cereals, *Mycosphaerella* species on bananas and peanuts, *Phytophthora infestans* on potatoes and tomatoes, *Plasmopara viticola* on grapevines, *Podosphaera leucotricha* on apples, *Pseudocercosporella herpotrichoides* on wheat and barley, *Pseudoperonospora* species on hops and cucumbers, *Puccinia* species on cereals, *Pyricularia oryzae* on rice, *Rhizoctonia* species on cotton, rice and lawns, *Septoria nodorum* on wheat, *Uncinula necator* on grapevines, *Ustilago* species on cereals and sugar cane, and *Venturia* species (scab) on apples and pears.

Moreover, the compounds I are suitable for controlling harmful fungi such as *Paecilomyces variotii* in the protection of materials (e.g. wood, paper, paint dispersions, fibers and fabrics) and in the protection of stored products.

The compounds I are applied by treating the fungi, or the plants, seeds, materials or the soil to be protected against fungal attack, with a fungicidally effective amount of the active ingredients. Application can be effected both before and after infection of the materials, plants or seeds by the fungi.

Compounds of formula I are suitable for use as herbicides. Depending upon the application method, compounds I and herbicidal compositions comprising them may be used in crops for the control of unwanted plants. Exemplary are the following crops:

Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Beta vulgaris spp. altissima, Beta vulgaris spp. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragaria vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spp., Manihot esculenta, Medicago sativa, Musa spp., Nicotiana tabacum (N. rustica), Olea europaea, Oryza sativa , Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spp., Pisum sativum, Prunus avium, Prunus persica, Pyrus communis, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Solanum tuberosum, Sorghum bicolor (s. vulgare), Theobroma cacao, Trifolium pratense, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera und *Zea mays*.

Compounds of formula I may also be used in crops that have acquired resistance against other herbicides.

For controlling animal pests, pesticidally active amounts of compounds of formula I are typically applied to the pests or to their food supply, habitat or breeding ground. For the protection of growing plants from attack or infestation by the pests, pesticidally active amounts of the compounds of formula I are typically applied to the foliage, stem or roots of the plants or to the soil or water in which they are growing.

The rate of application of active ingredient for controlling animal pests is from 0,01 to 100, preferably 0,1 to 3 kg/ha under field conditions.

The compounds I can be converted into the customary formulations, e.g. solutions, emulsions, suspensions, dusts, powders, pastes and granules. The use form depends on the particular purpose; in any case, it should guarantee a fine and uniform distribution of the compound according to the invention.

The formulations are prepared in a known manner, e.g. by extending the active ingredient with solvents and/or carriers, if desired using emulsifiers and dispersants, it also being possible to use other organic solvents as auxiliary solvents if water is used as the diluent. Auxiliaries which are suitable are essentially: solvents such as aromatics (e.g. xylene), chlorinated aromatics (e.g. chlorobenzenes), paraffins (e.g. mineral oil fractions), alcohols (e.g. methanol, butanol), ketones (e.g. cyclohexanone), amines (e.g. ethanolamine, dimethylformamide) and water; carriers such as ground natural minerals (e.g. kaolins, clays, talc, chalk) and ground synthetic minerals (e.g. highly-disperse silica, silicates); emulsifiers such as non-ionic and anionic emulsifiers (e.g. polyoxyethylene fatty alcohol ethers, alkylsulfonates and arylsulfonates) and dispersants such as lignin-sulfite waste liquors and methylcellulose.

Suitable surfactants are alkali metal, alkaline earth metal and ammonium salts of lignosulfonic acid, naphthalenesulfonic acid, phenolsulfonic acid, dibutylnaphthalenesulfonic acid, alkylarylsulfonates, alkyl sulfates, alkylsulfonates, fatty alcohol sulfates and fatty acids and their alkali metal and alkaline earth metal salts, salts of sulfated fatty alcohol glycol ether, condensates of sulfonated naphthalene and naphthalene derivatives with formaldehyde, condensates of naphthalene or of napthalenesulfonic acid with phenol or formaldehyde, polyoxyethylene octylphenyl ether, ethoxylated isooctylphenol, octylphenol, nonylphenol, alkylphenol polyglycol ethers, tributylphenyl polyglycol ethers, alkylaryl polyether alcohols, isotridecyl alcohol, fatty alcohol/ethylene oxide condensates, ethoxylated castor oil, polyoxyethylene alkyl ethers, ethoxylated polyoxypropylene, lauryl alcohol polyglycol ether acetal, sorbitol esters, lignin-sulfite waste liquors and methylcellulose.

Substances which are suitable for the preparation of directly sprayable solutions, emulsions, pastes or oil dispersions are mineral oil fractions of medium to high boiling point, such as kerosene or diesel oil, furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, e.g. benzene, toluene, xylene, paraffin, tetrahydronaphthalene, alkylated naphthalenes or their derivatives, methanol, ethanol, propanol, butanol, chloroform, carbon tetrachloride, cyclohexanol, cyclohexanone, chlorobenzene, isophorone, strongly polar solvents, e.g. dimethylformamide, dimethyl sulfoxide, N-methylpyrrolidone and water.

Powders, materials for scattering and dusts can be prepared by mixing or concomitantly grinding the active substances with a solid carrier.

Granules, e.g. coated granules, impregnated granules and homogeneous granules, can be prepared by binding the active ingredients to solid carriers. Examples of solid carriers are mineral earths, such as silicas, silica gels, silicates, talc, kaolin, attaclay, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium sulfate, magnesium sulfate, magnesium oxide, ground synthetic materials, fertilizers, e.g. ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas, and products of vegetable origin, such as cereal meal, tree bark meal, wood meal and nutshell meal, cellulose powders and other solid carriers.

In general, the formulations comprise of from 0.01 to 95% by weight, preferably from 0.1 to 90% by weight, of the active ingredient. The active ingredients are employed in a purity of from 90% to 100%, preferably 95% to 100% (according to NMR spectrum).

The following are exemplary formulations:

I. 5 parts by weight of a compound according to the invention are mixed intimately with 95 parts by weight of finely divided kaolin. This gives a dust which comprises 5% by weight of the active ingredient.

II. 30 parts by weight of a compound according to the invention are mixed intimately with a mixture of 92 parts by weight of pulverulent silica gel and 8 parts by weight of paraffin oil which had been sprayed onto the surface of this silica gel. This gives a formulation of the active ingredient with good adhesion properties (comprises 23% by weight of active ingredient).

III. 10 parts by weight of a compound according to the invention are dissolved in a mixture composed of 90 parts by weight of xylene, 6 parts by weight of the adduct of 8 to 10 mol of ethylene oxide and 1 mol of oleic acid N-monoethanolamide, 2 parts by weight of calcium dodecylbenzenesulfonate and 2 parts by weight of the adduct of 40 mol of ethylene oxide and 1 mol of castor oil (comprises 9% by weight of active ingredient).

IV. 20 parts by weight of a compound according to the invention are dissolved in a mixture composed of 60 parts by weight of cyclohexanone, 30 parts by weight of isobutanol, 5 parts by weight of the adduct of 7 mol of ethylene oxide and 1 mol of isooctylphenol and 5 parts by weight of the adduct of 40 mol of ethylene oxide and 1 mol of castor oil (comprises 16% by weight of active ingredient).

V. 80 parts by weight of a compound according to the invention are mixed thoroughly with 3 parts by weight of sodium diisobutylnaphthalene-alpha-sulfonate, 10 parts by weight of the sodium salt of a lignosulfonic acid from a sulfite waste liquor and 7 parts by weight of pulverulent silica gel, and the mixture is ground in a hammer mill (comprises 80% by weight of active ingredient).

VI. 90 parts by weight of a compound according to the invention are mixed with 10 parts by weight of N-methyl-α-pyrrolidone, which gives a solution which is suitable for use in the form of microdrops (comprises 90% by weight of active ingredient).

VII. 20 parts by weight of a compound according to the invention are dissolved in a mixture composed of 40 parts by weight of cyclohexanone, 30 parts by weight of isobutanol, 20 parts by weight of the adduct of 7 mol of ethylene oxide and 1 mol of isooctylphenol and 10 parts by weight of the adduct of 40 mol of ethylene oxide and 1 mol of castor oil. Pouring the solution into 100,000 parts by weight of water and finely distributing it therein gives an aqueous dispersion which comprises 0.02% by weight of the active ingredient.

VIII. 20 parts by weight of a compound according to the invention are mixed thoroughly with 3 parts by weight of sodium diisobutylnaphthalene-α-sulfonate, 17 parts by weight of the sodium salt of a lignosulfonic acid from a sulfite waste liquor and 60 parts by weight of pulverulent silica gel, and the mixture is ground in a hammer mill. Finely distributing the mixture in 20,000 parts by weight of water gives a spray mixture which comprises 0.1% by weight of the active ingredient.

The active ingredients can be used as such, in the form of their formulations or the use forms prepared therefrom, e.g. in the form of directly sprayable solutions, powders, suspensions or dispersions, emulsions, oil dispersions, pastes, dusts, materials for spreading, or granules, by means of spraying, atomizing, du-

sting, scattering or pouring. The use forms depend entirely on the intended purposes; in any case, this is intended to guarantee the finest possible distribution of the active ingredients according to the invention.

Aqueous use forms can be prepared from emulsion concentrates, pastes or wettable powders (sprayable powders, oil dispersions) by adding water. To prepare emulsions, pastes or oil dispersions, the substances as such or dissolved in an oil or solvent, can be homogenized in water by means of wetter, tackifier, dispersant or emulsifier. Alternatively, it is possible to prepare concentrates composed of active substance, wetter, tackifier, dispersant or emulsifier and, if appropriate, solvent or oil, and such concentrates are suitable for dilution with water.

The active ingredient concentrations in the ready-to-use products can be varied within substantial ranges. In general, they are from 0.0001 to 10%, preferably from 0.01 to 1%.

The active ingredients may also be used successfully in the ultra-low-volume process (ULV), it being possible to apply formulations comprising over 95% by weight of active ingredient, or even the active ingredient without additives.

Various types of oils, herbicides, fungicides, other pesticides, or bactericides may be added to the active ingredients, if appropriate also only immediately prior to use (tank mix). These agents can be admixed with the agents according to the invention in a weight ratio of 1:10 to 10:1.

In the use form as pesticides in crop protection, the compositions according to the invention can also be present together with other active ingredients, e.g. with herbicides, insecticides, growth regulators, fungicides or else with fertilizers. Mixing the compounds I or the compositions comprising them in the use form as pesticides with other pesticides frequently results in a broader pesticidal spectrum of action.

The following list of pesticides together with which the compounds according to the invention can be used, is intended to illustrate the possible combinations.

Organophosphates: Acephate, Azinphos-methyl, Chlorpyrifos, Chlorfenvinphos, Diazinon, Dichlorvos, Dicrotophos, Dimethoate, Disulfoton, Ethion, Fenitrothion, Fenthion, Isoxathion, Malathion, Methamidophos, Methidathion, Methyl-Parathion, Mevinphos, Monocrotophos, Oxydemeton-methyl, Paraoxon, Parathion, Phenthoate, Pho-

salone, Phosmet, Phosphamidon, Phorate, Phoxim, Pirimiphos-methyl, Profenofos, Prothiofos, Sulprophos, Triazophos, Trichlorfon;

Carbamates: Alanycarb, Benfuracarb, Carbaryl, Carbosulfan, Fenoxycarb, Furathiocarb, Indoxacarb, Methiocarb, Methomyl, Oxamyl, Pirimicarb, Propoxur, Thiodicarb, Triazamate;

Pyrethroids: Bifenthrin, Cyfluthrin, Cypermethrin, Deltamethrin, Esfenvalerate, Ethofenprox, Fenpropathrin, Fenvalerate, Cyhalothrin, Lambda-Cyhalothrin, Permethrin, Silafluofen, Tau-Fluvalinate, Tefluthrin, Tralomethrin, Zeta-Cypermethrin;

Arthropod growth regulators: a) chitin synthesis inhibitors: benzoylureas: Chlorfluazuron, Diflubenzuron, Flucycloxuron, Flufenoxuron, Hexaflumuron, Lufenuron, Novaluron, Teflubenzuron, Triflumuron; Buprofezin, Diofenolan, Hexythiazox, Etoxazole, Clofentazine; b) ecdysone antagonists: Halofenozide, Methoxyfenozide, Tebufenozide; c) juvenoids: Pyriproxyfen, Methoprene, Fenoxycarb; d) lipid biosynthesis inhibitors: Spirodiclofen;

Various: Abamectin, Acequinocyl, Amitraz, Azadirachtin, Bifenazate, Cartap, Chlorfenapyr, Chlordimeform, Cyromazine, Diafenthiuron, Dinetofuran, Diofenolan, Emamectin, Endosulfan, Fenazaquin, Fipronil, Formetanate, Formetanate, Hydrochloride, Hydramethylnon, Imidacloprid, Indoxacarb, Pyridaben, Pymetrozine, Spinosad, Sulfur, Tebufenpyrad, Thiamethoxam, and Thiocyclam.

This invention also provides a method for treating, curing, controlling, preventing and protecting warm-blooded animals, including humans, and fish against infestation and infection by helminths, acarids and arthropod endo- and ectoparasites which comprises orally, topically or parenterally administering or applying to said animals an anthelmintically, acaricidally or endo- or ectoparasiticidally effective amount of compounds of formula I.

The above method is particularly useful for controlling and preventing helminth, acarid and arthropod endo- and ectoparasitic infestations and infections in warm-blooded animals such as cattle, sheep, swine, camels, deer, horses, poultry, fish, rabbits, goats, mink, fox, chinchillas, rabbits, dogs and cats as well as humans.

Compounds of formula I are especially useful in controlling helminths and nematodes. Examples for helminths are members of the class *Trematoda*, commonly known as flukes or flatworms, espe-

cially members of the genera *Fasciola, Fascioloides, Paramphistomum, Dicrocoelium, Eurytrema, Ophisthorchis, Fasciolopsis, Echinostoma* and *Paragonimus*. Nematodes which can be controlled by the formula I compounds include the genera *Haemonchus, Ostertagia, Cooperia, Oesphagastomum, Nematodirus, Dictyocaulus, Trichuris, Dirofilaria, Ancyclostoma, Ascaris* and the like.

The formula I compounds of this invention also control endoparasitic arthropod infestations such as cattle grub and stomach bot. In addition, acarid and arthropod ectoparasitic infestations in warm-blooded animals and fish including biting lice, sucking lice, bot flies, biting flies, muscoid flies, myiasitic fly larvae, gnats, mosquitoes, fleas, mites, ticks, nasal bots, keds and chiggers may be controlled, prevented or eliminated by the compounds of this invention. Biting lice include members of *Mallophaga* such as *Bovicola bovis, Trichodectes canis* and *Damilina ovis*. Sucking lice include members of *Anoplura* such as *Haematopinus eurysternus, Haematopinus suis, Linognathus vituli* and *Solenopotes capillatus*. Biting flies include members of *Haematobia*. Ticks include *Boophilus, Rhipicephalus, Ixodes, Hyalomma, Amblyomma* and *Dermacentor*. The formula I compounds may also be used to control mites which are parasitic on warm-blooded mammals and poultry including mites of the orders *Acariformes* and *Parasitiformes*.

For oral administration to warm-blooded animals, the formula I compounds may be formulated as animal feeds, animal feed premixes, animal feed concentrates, pills, solutions, pastes, suspensions, drenches, gels, tablets, boluses and capsules. In addition, the formula I compounds may be administered to the animals in their drinking water. For oral administration, the dosage form chosen should provide the animal with about 0.01 mg/kg to 100 mg/kg of animal body weight per day of the formula I compound.

Alternatively, the formula I compounds may be administered to animals parenterally, for example, by intraruminal, intramuscular, intravenous or subcutaneous injection. The formula I compounds may be dispersed or dissolved in a physiologically acceptable carrier for subcutaneous injection. Alternatively, the formula I compounds may be formulated into an implant for subcutaneous administration. In addition the formula I compound may be transdermally administered to animals. For parenteral administration, the dosage form chosen should provide the animal with about 0.01 mg/kg to 100 mg/kg of animal body weight per day of the formula I compound.

The formula I compounds may also be applied topically to the animals in the form of dips, dusts, powders, collars, medallions,

sprays and pour-on formulations. For topical application, dips and sprays usually contain about 0.5 ppm to 5,000 ppm and preferably about 1 ppm to 3,000 ppm of the formula I compound. In addition, the formula I compounds may be formulated as ear tags for animals, particularly quadrupeds such as cattle and sheep.

The formula I compounds of this invention may also be used in combination or conjunction with one or more other parasiticidal compounds including anthelmintics, such as benzimidazoles, piperazine, levamisole, pyrantel, and praziquantel; endectocides such as avermectins, and milbemycins; ectoparasiticides such as arylpyrroles, organophosphates, and carbamates, gamabutyric acid inhibitors including fipronil, pyrethroids, spinosads and imidacloprid; insect growth regulators such as pyriproxyfen, and cyromazine; and chitin synthase inhibitors such as benzoylureas including flufenoxuron.

The formula I compounds may also be used in combination or conjunction with one or more compounds selected from piperonyl butoxide, N-octyl bicycloheptene dicarboximide, dipropyl pyridine-2,5-dicarboxylate and 1,5a,6,9,9a,9b-hexahydro-4a(4H)-dibenzo-furancarboxaldehyde to broaden the spectrum of activity.

The parasiticidal compositions of the present invention include a parasiticidally effective amount of a formula I compound of this invention or combinations thereof admixed with one or more physiologically tolerable inert, solid or liquid carriers known from veterinary medicinal practice for oral, percutaneous and topical administration. Such compositions may comprise further additives, such as stabilizers, anifoams, viscosity regulators, binders and tackifiers. Whereas commercial products will preferably be formulated as concentrates, the end user will normally employ dilute formulations.

Synthesis Examples

With due modification of the starting compounds, the protocols shown in the synthesis examples below were used for obtaining further compounds I. The resulting compounds, together with physical data, are listed in Table I which follows.

Example 1
Preparation of 2-(5-Chloro-benzothiazol-2-yl-sulfanyl)-propionic acid ethyl ester

A solution of 5-chloro-benzothiazol-2-thiol (1,4 g) in 50 ml acetonitrile was treated with potassium carbonate (1,0 g) and 2-bromo-propionic acid ethyl ester (1,25 g) for 3 hours at room

temperature. The solvent was removed in vacuo and the residue redissolved in ethyl acetate and washed with water. The organic extract was dried over anhydrous sodium sulfate. Removal of solvent gave 2,1 g of the title compound as a light-brown oil.
^{1}H-NMR (δ [$CDCl_3$]) = 1.3 (m_c,3H), 1.7 (m_c,3H), 4.2 (m_c,2H), 4.7 (m_c,1H), 7.25 (d,1H), 7.65 (d,1H), 7.85 (s,1H).

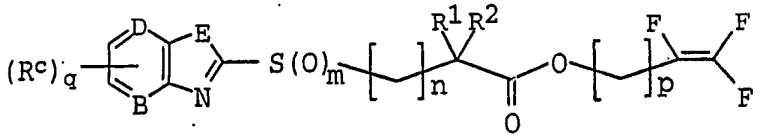
Example 2
Preparation of 2-(5-Chloro-benzothiazol-2-yl-sulfanyl)-butyric acid

A solution of 2-(5-chloro-benzothiazol-2-yl-sulfanyl)-butyric acid ethyl ester (1,62 g) in 40 ml of ethanol was treated with 40 ml of water and an aqueous solution of potassium hydroxide in water (85%, 0,36 g) for 14 hours at 25 °C. Ethanol was removed in vacuo, the ressidue acidified with diluted hydrochloric acid and extracted with ethyl acetate. The organic extract was dried over anhydrous sodium sulfate. Removal of solvent gave 1,5 g of the title compound as a light-brown oil.
^{1}H-NMR (δ [d^6-DMSO]) = 1.00 (t,3H), 2.00 (m_c, 2H), 4.55 (t, 1H), 7.45 (d,1H), 7.95 (s,1H), 8.1 (d,1H).

Example 3
Preparation of 2-[4-(4-chlorophenyl)-thiazol-2-yl-sulfanyl]-hexanoic acid 3,4,4-trifluoro-but-3-enyl ester

A mixture of 2-[4-(4-chlorophenyl)-thiazol-2-yl-sulfanyl]-hexanoic acid (0,3 g), potassium carbonate (0,16 g) and 4-bromo-1,2,2-trifluorobut-1-ene (0,21 g) in 20 ml N,N-dimethylformamide was stirred at 40-45°C for 4 hours. The reation mixture was poured into ice water and extracted with ethyl acetate. The organic extract was dried over anhydrous sodium sulfate and concentrated in vacuo to give 0,37 g of the title compound as a light-brown oil.
^{1}H-NMR (δ [$CDCl_3$]) = 0.9 (t,3H), 1.15-2.1 (m,6H), 2.6 (m_c,2H), 4.25-4.4 (m,3H), 7.35 (m_c,3H), 7.8 (d,2H).

Table I



(I.2)

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-1	CH	CH	O	6-Cl	1	H	H	0	0	4	
I.2-2	CH	CH	S	-	0	H	H	0	0	4	
I.2-3	CH	CH	S	6-CF_3	1	H	H	0	0	4	
I.2-4	N	CH	S	6-CH_3	1	H	H	0	0	2	
I.2-5	CH	CH	O	6-Cl	1	$CH(CH_3)_2$	H	0	0	2	
I.2-6	CH	CH	S	-	0	H	H	0	0	2	
I.2-7	CH	CH	O	-	0	H	H	0	0	2	
I.2-8	CH	CH	S	-	0	CH_3	H	0	0	2	
I.2-9	CH	CH	O	6-Cl	1	H	H	0	0	2	
I.2-10	CH	CH	S	6-OCH_2CH_3	1	H	H	0	0	2	
I.2-11	CH	CH	S	-	0	CH_2CH_3	H	0	0	2	1.0(t), 2.10(m_c), 2.65(m_c), 4.30 (t), 4.65(t), 7.25(t), 7.40(t), 7.75(d), 7.85(d)
I.2-12	CH	CH	S	-	0	C_6H_5	H	0	0	2	
I.2-13	CH	CH	S	-	0	$CH(CH_3)_2$	H	0	0	2	
I.2-14	CH	CH	O	6-Cl	1	CH_3	H	0	0	2	
I.2-15	CH	CH	S	5-Cl	1	H	H	0	0	2	

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-16	CH	CH	NH	-	0	H	H	0	0	2	
I.2-17	CH	N	S	-	0	H	H	0	0	2	
I.2-18	N	CH	S	6-CH_3	1	CH_2CH_3	H	0	0	2	
I.2-19	N	CH	S	6-CH_3	1	$CH(CH_3)_2$	H	0	0	2	
I.2-20	N	CH	O	-	0	H	H	0	0	2	
I.2-21	N	CH	S	-	0	CH_3	H	0	0	2	
I.2-22	N	CH	S	6-Br	1	H	H	0	0	2	
I.2-23	CH	CH	S	6-OCH_2CH_3	1	CH_3	H	0	0	2	
I.2-24	N	CH	S	-	0	H	H	0	0	2	
I.2-25	N	CH	S	-	0	$CH(CH_3)_2$	H	0	0	2	
I.2-26	N	CH	S	-	0	F	H	0	0	2	
I.2-27	CH	CH	S	-	0	CH_3	CH_3	0	0	2	1.75(s), 2.65 (m_c), 4.30(t), 7.35 (t), 7.45(t), 7.75(d), 7,90(d)
I.2-28	CH	CH	S	-	0	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.30-1.55(m), 1.90-2.15 (m), 2.60(m_c), 4.30(t), 4.65(t), 7.30(t), 7.45(t), 7,75(d), 7.85(d)
I.2-29	CH	CH	S	6-OCH_2CH_3	1	$(CH_2)_3CH_3$	H	0	0	2	0.90(t), 1.30-1.50(m), 1.85-2.10 (m), 2.60(m_c), 4.05(q), 4.30(t), 4.50(t); 6.95(d), 7.20(s), 7.75(d)

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-30	CH	CH	S	6-OCH_2CH_3	1	CH_3	CH_3	0	0	2	1.45(t), 1.70(s), 2.60(m_c), 4.05 (q), 4.30(t), 7.05(d), 7.25(s), 7.80(d)
I.2-31	CH	CH	S	6-OCH_2CH_3	1	CH_2CH_3	H	0	0	2	1.15(t), 1.45(t), 1.95-2.2(m), 4.05(q), 4.35(t), 4.5(t), 7.0(d), 7.2 (s), 7.75 (d)
I.2-32	N	CH	S	6-CF_3	1	CH_2CH_3	H	0	0	2	1.15(t), 2.0-2,25(m), 2.7(m_c), 4.35(q), 4.95(t), 8.4(s), 8.9(s)
I.2-33	CH	CH	O	-	0	CH_3	H	0	0	2	1.75(d), 2.65(m_c), 4.35(t), 4.65 (q), 7.25(m_c), 7.45(d), 7.6(d)
I.2-34	CH	CH	O	-	0	CH_2CH_3	CH_3	0	0	2	1.15(t), 2.10(m_c), 2,65(m_c), 4.3 (t), 4.55(t), 7.25(m_c), 7.45(d), 7.60(d)
I.2-35	CH	CH	O	-	0	CH_3	CH_3	0	0	2	1.75(s), 2.65(m_c), 4.30(t), 7.25(m_c), 7.45(d), 7.60(d)
I.2-36	CH	CH	O	-	0	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.30-2.15(m), 2.65(m_c), 4.35(t), 4.55(t), 7.25(m_c), 7.45 (d), 7.60(d)
I.2-37	CH	CH	O	-	0	$CH(CH_3)_2$	H	0	0	2	1.15(d), 2.40(m_c), 2.65(m_c), 4.35 (t), 4.55(d), 7.25(m_c), 7.45(d), 7.60(d)
I.2-38	CH	N	S	-	0	CH_3	H	0	0	2	1.75(d), 2.65(m_c), 4.35(t), 4.75 (q), 7.35(m_c), 8.05(d), 8.45(d)
I.2-39	CH	N	S	-	0	CH_3	CH_3	0	0	2	1.75(s), 2.65(m_c), 4.30(t), 7.35 (m_c), 8.05(d), 8.50(d)

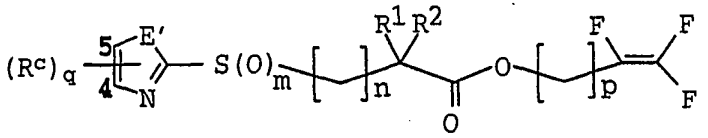
No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-40	CH	N	S	-	0	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.25-2.15(m), 2.65(m_c), 4.35(t), 4.75(t), 7.35(m_c), 8.0 (d), 8.5(d)
I.2-41	N	CH	S	6-Cl	1	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.25-2.15(m), 2.65(m_c), 4.3(m_c), 4.95(t), 8.1(s), 8.55(s)
I.2-42	N	CH	S	-	0	$CH(CH_3)_2$	H	0	0	2	1.15(d), 2.4(m_c), 2.65(m_c), 4.35 (m_c), 4.75(d), 7.35(m_c), 8.05(d), 8.45(d)
I.2-43	CH	CH	O	6-Cl	1	CH_2CH_3	H	0	0	2	1.1(t), 2,05(m_c), 2.65(m_c), 4.35 (t), 4.5 (t), 7.25(d), 7.55(m_c)
I.2-44	CH	CH	O	6-Cl	1	CH_3	CH_3	0	0	2	1.80(s), 2.65(m_c), 4.3(t), 7.25 (d), 7.45(s), 7.55(d)
I.2-45	CH	CH	O	6-Cl	1	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.25-2.15(m), 2.65(m_c), 4.3(t), 4.5(t), 7.25(d), 7.5(m_c)
I.2-46	CH	CH	S	6-OCH_2CH_3	1	$CH(CH_3)_2$	H	0	0	2	1.15(m_c), 1.45(t), 2.35(m_c), 2.65 (m_c), 4.05(q), 4.3(m_c), 4.5(d), 7.0(d), 7.2(s), 7.75(d)
I.2-47	CH	CH	S	6-CF_3	1	H	H	0	0	2	
I.2-48	CH	CH	O	5-CH_3	1	H	H	0	0	2	
I.2-49	CH	CH	S	6-F	1	H	H	0	0	2	
I.2-50	N	CH	S	6-CH_3	1	F	H	0	0	2	
I.2-51	N	CH	S	6-CF_3	1	CH_3	H	0	0	2	
I.2-52	CH	CH	S	6-OCF_3	1	H	H	0	0	2	

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-53	N	CH	S	6-Br	1	CH_3	H	0	0	2	1.75(d), 2.65(m_c), 4.35(m_c), 4.95 (q), 8.25(s), 8.65(s)
I.2-54	N	CH	S	6-Br	1	CH_2CH_3	H	0	0	2	1.1(t), 2.10(m_c), 2.65(m_c), 4.35 (m_c), 4.90(t), 8.25(s), 8.65(s)
I.2-55	N	CH	S	6-Br	1	CH_3	CH_3	0	0	2	1.85(s), 2.65(m_c), 4.35(t), 8.25 (s), 8.65(s)
I.2-56	CH	CH	O	5-CH_3	1	CH_3	H	0	0	2	1.75(d), 2.45(s), 2.65(m_c), 4.35 (t), 4.6(q), 7.05(d), 7.30(d), 7.4(s)
I.2-57	CH	CH	O	5-CH_3	1	CH_2CH_3	H	0	0	2	1.15(t), 2.1(m_c), 2.45(s), 2.65 (m_c), 4.35(t), 4.55(t), 7.05(d), 7.3(d), 7.4(s)
I.2-58	CH	CH	O	5-CH_3	1	CH_3	CH_3	0	0	2	1.8(s), 2.45(s), 2.65(m_c), 4.35 (m_c), 7.1(d), 7.3(d), 7.4(s)
I.2-59	CH	CH	S	5-Cl	1	$CH(CH_3)_2$	H	0	0	2	1.15(d), 2.4(m_c), 2.65(m_c), 4.35 (m_c), 4.65(d), 7.25(d) 7.65(d), 7.85(d)
I.2-60	N	CH	S	-	0	CH_2CH_3	H	0	0	2	1.1(t), 2.1(m_c), 2.7(m_c), 4.95(t), 7.25(m_c), 8.1(d), 8.65(d)
I.2-61	N	CH	S	-	0	CH_3	CH_3	0	0	2	1.85(s), 2,65(m_c), 4.35(m_c), 7.25 (m_c), 8.1(d), 8.65(d)
I.2-62	N	CH	S	-	0	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.3-2.2(m), 2.65(m_c), 4.35(m_c), 4.95(t), 7.25(m_c), 8.1(d), 8.65(d)

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-63	CH	CH	S	5-Cl	1	CH_3	H	0	0	2	1.75(d), 2.65(m_c), 4.3(t), 4.7 (q), 7.25(d), 7.7(d), 7.85(s)
I.2-64	CH	CH	S	5-Cl	1	CH_2CH_3	H	0	0	2	see example 3
I.2-65	CH	CH	S	5-Cl	1	CH_3	CH_3	0	0	2	1.75(s), 2.65(m_c), 4.35(t), 7.3(d), 7.7(d), 7.85(s)
I.2-66	CH	CH	S	5-Cl	1	$(CH_2)_3CH_3$	H	0	0	2	0.95(t), 1.3-2.1(m), 2.65(m_c), 4.35(m_c), 4.65(t), 7.3(d), 7.7(d), 7.85(s)
I.2-67	CH	CH	S	5-OCH_3	1	H	H	0	0	2	2.85(m_c), 3.55(t), 3.9(s), 6.95 (d), 7.4(s), 7.6(d)
I.2-68	CH	CH	S	5-OCH_3	1	CH_3	H	0	0	2	1.7(d), 2.65 (m_c), 3.85(s), 4.35(m_c), 4.7(q), 6.95(d), 7.4(s), 7.6(d)
I.2-69	CH	CH	S	5-OCH_3	1	$CH(CH_3)_2$	H	0	0	2	1.15(m_c), 2.4(m_c), 2.65(m_c), 3.85 (s), 4.35 (t), 4.6(d), 6.95(d), 7.4(s), 7.6(d)
I.2-70	CH	N	NCH_3	-	0	H	H	0	0	2	2.85(m_c), 3.65(t), 3.75(s), 7.2(m_c), 7.85(d), 8.25(d)
I.2-71	CH	CH	O	6-Cl	1	H	H	0	1	2	2.65(m_c), 3.0(t), 3.55(m_c), 4.35 (t), 7.25(d), 7.45(s), 7.5(d)
I.2-72	CH	CH	S	-	0	H	H	0	2	2	
I.2-73	CH	CH	S	6-OCH_2CH_3	1	H	H	0	2	2	1.45(t), 2.15(m_c), 2.5(t), 2.65 (m_c), 3.35(t), 4.05(q), 4.25(t), 7.0(d), 7.2(s), 7.75(d)

No.	B	D	E	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.2-74	CH	CH	O	-	0	H	H	0	2	2	2.2(m_c), 2.5-2.7(m), 3.35(m_c), 4.25(m_c), 7.25(m_c), 7.45(d), 7.6 (d)
I.2-75	CH	CH	O	6-Cl	1	H	H	0	2	2	2.2(m_c), 2.55(m_c), 2.65(m_c), 3.35 (m_c), 4.3(m_c), 7.25(d), 7.45(s), 7.5(d)
I.2-76	CH	N	S	-	0	CH_3	H	2	0	2	1.8(d), 2.55(m_c), 4.3(m_c), 4.65 (q), 7.65(m_c), 8.5(d), 8.8(d)
I.2-77	CH	N	S	-	0	CH_3	CH_3	2	0	2	1.8(s), 2.65(m_c), 4.3(t), 7.6(dd), 8.5(d), 8.8(d)
I.2-78	CH	N	S	-	0	CH_3	CH_3	1	0	2	1.85(s), 2.65(m_c), 4.35(t), 7.55 (dd), 8,15(d), 8.4(d)

Table II



(I.3)

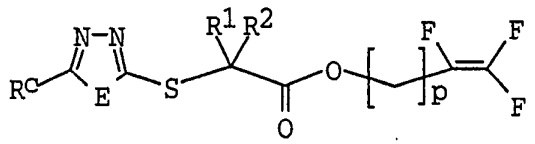
No.	E'	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.3-1	S	4-(p-F-C_6H_4)	1	CH_2CH_3	CH_2CH_3	0	0	2	1.0(m_c), 2.0(m_c), 2.6(m_c), 4.3 (m_c), 7.1(m_c), 7.4(s), 7.85(m_c)
I.3-2	S	4-(p-F-C_6H_4)	1	H	H	0	0	2	2.65(m_c), 4.1(s), 4.35(m_c), 7.1(m_c), 7.3(s), 7.85(m_c)
I.3-3	S	4-(p-F-C_6H_4)	1	CH_3	H	0	0	2	1.7(d), 2.6(m_c), 4.3(m_c), 4.45 (q), 7.1(m_c), 7.35(s), 7.85(m_c)

No.	E'	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.3-4	S	4-(p-F-C_6H_4)	1	CH_3	CH_3	0	0	2	1.7(s), 2.6(m_c), 4.25(t), 7.1(m_c), 7.4(s), 7.85(m_c)
I.3-5	S	4-(p-F-C_6H_4)	1	$CH(CH_3)_2$	H	0	0	2	1.15(m_c), 2.3(m_c), 2.65(m_c), 4.2-4.4(m), 7.1(m_c), 7.3(s), 7.8(m_c)
I.3-6	S	4-(p-F-C_6H_4)	1	$(CH_2)_3CH_3$	H	0	0	2	1.95(m_c), 1.2-2.1(m), 2.65(m_c), 4.25-4.4 (m), 7.1(m_c), 7.35(s), 7.85(m_c)
I.3-7	S	4-(p-F-C_6H_4)	1	CH_2CH_3	H	0	0	2	1.15(t), 2.05(m_c), 2.6(m_c), 4.2-4.45(m), 7.1(t), 7.3(s), 7.85(m_c)
I.3-8	S	4-(p-Cl-C_6H_4)	1	CH_3	CH_3	0	0	2	1.7(s), 2.55(m_c), 4.25(t), 7.4(d), 7.5(s), 7.8(d)
I.3-9	S	4-(p-Cl-C_6H_4)	1	CH_3	H	0	0	2	1.7(s), 2.6(m_c), 4.3(m_c), 4.45 (q), 7.35(m_c), 7.8(d)
I.3-10	S	4-(p-Cl-C_6H_4)	1	$(CH_2)_3CH_3$	H	0	0	2	see example 4
I.3-11	S	4-(p-Cl-C_6H_4)	1	CH_2CH_3	H	0	0	2	1.15(t), 2.05(m_c), 2.65(m_c), 4.25-4.4(m), 7.35(m_c), 7.8(d)
I.3-12	S	4-(o,p-Cl_2-C_6H_3)	1	CH_3	H	0	0	2	1.65(m_c), 2.6(m_c), 4.2-4.5 (m), 7.35(d), 7.5(s), 7.8(c), 7.95(d)
I.3-13	S	4-(o,p-Cl_2-C_6H_3)	1	CH_3	CH_3	0	0	2	1.7(s), 2.6(m_c), 4.3(m_c), 7.35 (d), 7.5(s), 7.9(m_c)
I.3-14	S	4-(o,p-Cl_2-C_6H_3)	1	$(CH_2)_3CH_3$	H	0	0	2	0.9(t), 1.3-2.1(m), 2.6(m_c), 4.2-4.4(m), 7.3(d), 7.5(s), 7.8(s), 7.95(d)

No.	E'	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.3-15	S	4-(o,p-Cl_2-C_6H_3)	1	$CH(CH_3)_2$	H	0	0	2	1.1(dd), 2.3(m_c), 2.65(m_c), 4.2-4.4(m), 7.3(d), 7.5(s), 7.8(s), 7.95(d)
I.3-16	S	4-(p-Cl-C_6H_4)	1	$CH(CH_3)_2$	H	0	0	2	1.15(dd), 2.35(m_c), 2.65(m_c), 4.2-4.4(m),7.35(m_c), 7.8(d)
I.3-17	S	4-(C_6H_5)	1	CH_3	CH_3	0	0	2	1.7(s), 2.6(m_c), 4.3(t), 7.3-7.5(m), 7.85(d)
I.3-18	S	4-(C_6H_5)	1	$(CH_2)_3CH_3$	H	0	0	2	0.9(t), 1.3-2.1(m), 2.6(m_c), 4.2-4.45(m), 7.25-7.45(m), 7.85(d)
I.3-19	S	5-(C_6H_5)	1	$CH(CH_3)_2$	H	0	0	2	1.15(dd), 2.35(m_c), 2.65(m_c), 4.2-4.4(m), 7.25-7.45(m), 7.85(d)
I.3-20	O	4-(C_6H_5),5-(C_6H_5)	2	H	H	0	0	2	2.65(m_c), 4.05(s), 4.35(t), 7.25-7.60(m)
I.3-21	O	4-(C_6H_5),5-(C_6H_5)	2	CH_2CH_3	H	0	0	2	1.15(t), 2.1(m_c), 2.65(m_c), 4.3(m_c), 7.25-7.6(m)
I.3-22	O	4-(C_6H_5),5-(C_6H_5)	2	CH_3	H	0	0	2	1.75(d), 2.65(m_c), 4.25-4.5 (m), 7.25-7.55(m)
I.3-23	O	4-(C_6H_5),5-(C_6H_5)	2	CH_3	CH_3	0	0	2	1.75(s), 2.65(m_c), 4.3(t), 7.25-7.6(m)
I.3-24	O	4-(C_6H_5),5-(C_6H_5)	2	$CH(CH_3)_2$	H	0	0	2	1.15(dd), 2.35(m_c), 2.65(m_c), 4.25-4.45(m), 7.25-7.6(m)
I.3-25	O	4-(C_6H_5),5-(C_6H_5)	2	$(CH_2)_3CH_3$	H	0	0	2	0.9(t), 1.3-2.1(m), 2.65(m_c), 4.25-4.45(m,), 7.25-7.6(m)
I.3-26	S	4-(C_6H_5)	1	H	H	0	0	2	

No.	E'	$(R^c)_q$	q	R^1	R^2	m	n	p	Physical data: ^{1}H-NMR (δ [ppm])
I.3-27	S	4-(C_6H_5)	1	CH_3	H	0	0	2	
I.3-28	S	4-(C_6H_5)	1	CH_2CH_3	H	0	0	2	
I.3-29	S	4-(C_6H_5)	1	H	H	0	1	2	2.65(m_c), 2.95(t), 3.55(t), 4.35(t), 7.3-7.55(m), 7.85(d)
I.3-30	S	4-(C_6H_5)	1	H	H	0	2	2	2.15(m_c),2.5-2.7(m), 3.35(t), 4.25(t), 7.25-7.45(m), 7.85(d)
I.3-31	S	4-(p-F-C_6H_4)	1	H	H	2	0	2	2.65(m_c), 4.3(t), 4.55(s), 7.15(t), 7.8(s), 7.95(m_c)
I.3-32	S	4-(p-F-C_6H_4)	1	CH_3	H	2	0	2	1.8(d), 2.65(m_c), 4.3(m_c), 4.55 (q), 7.15(m_c), 7.8(s), 7.95(m_c)
I.3-33	S	4-(p-F-C_6H_4)	1	CH_2CH_3	H	1	0	2	1.1(m_c), 2.15(m_c), 2.6(m_c), 3.85-4.4(m), 7.1(m_c), 7.75(d), 7,85(m_c)
I.3-34	S	4-(p-F-C_6H_4)	1	CH_3	CH_3	1	0	2	1.2(s), 1.7(s), 2.65(m_c), 4.35(m_c), 7.1(m_c), 7.7(s), 7.8(m_c)
I.3-35	S	4-(p-F-C_6H_4)	1	$(CH_2)_3CH_3$	H	1	0	2	0.9(m_c), 1.15-2.2(m), 2.6(m_c), 3.9-4.4(m), 7.15(m_c), 7.7(d), 7.85(m_c)

Table III



(I.4)

No.	E	R^c	R^1	R^2	p	Physical data: ^{1}H-NMR (δ [ppm])
I.4-1	O	p-F-C_6H_4	H	H	2	2.7(m_c), 4.15(s), 4.4(t), 7.2(m_c), 8.0(m_c)
I.4-2	O	p-CH_3-C_6H_4	H	H	2	2.4(s), 2.65(m_c), 4.15(s), 4.35(t), 7.3(m_c), 7.9(m_c)
I.4-3	O	p-F-C_6H_4	CH_3	H	2	1.75(d), 2.65(mc), 4.25-4.55(m), 7.2(m_c), 8.0(m_c)
I.4-4	O	p-F-C_6H_4	$CH(CH_3)_2$	H	2	1.15(m_c), 2,4(m_c), 2.65(m_c), 4.3-4.45(m), 7.2(m_c), 8.0(m_c)
I.4-5	S	CH_3	H	H	2	2.65(m_c), 2.75(s), 4.15(s), 4.35(t)
I.4-6	S	CH_3	CH_3	H	2	1.7(d), 2.65(m_c), 2.75(s), 4.35(m_c), 4.55(q)
I.4-7	S	CH_3	$CH(CH_3)_2$	H	2	1.15(dd), 2.35(m_c), 2.65(m_c), 2.75(s), 4.3(m_c), 4.45(d)
I.4-8	O	p-F-C_6H_4	CH_2CH_3	H	2	1.15(t), 2.15(m_c), 2.65(m_c), 4.3-4.5(m), 7.25(m_c), 8.0(m_c)
I.4-9	S	CH_3	CH_2CH_3	H	2	1.1(t), 2.05(m_c), 2,65(m_c), 2.75(s), 4.25-4.5(m)
I.4-10	S	CH_3	CH_3	H	2	1.75(d), 2.65(m_c), 4.35(m_c), 4.75(q), 9.05(s)
I.4-11	S	CH_3	H	H	2	2.65(m_c), 4.2(s), 4.35(m_c), 9.05(s)

Examples of action against animal pests

The action of the compounds of the formula I against pests was demonstrated by the following experiments:

The active compounds were formulated

a. for testing the activity against nematodes as an about 0.05% w/v strength solution in a carrier of 5% by volume of acetone and 0.05% by volume Tween 20 (Polyoxyethylene-(20)-sorbitan monolaurate) in water, which was then diluted with 5% acetone in water and 0.05% Tween 20 in water to achieve the desired concentrations for drenching.

b. for testing the activity against insects and arachnids as a 10.000 ppm solution in a mixture of 35% acetone and water, which was diluted with water, if needed.

After the experiments were completed, in each case the lowest concentration was determined at which the compound still caused an 80 to 100% inhibition or mortality in comparison with untreated controls (limit or minimal concentration).

Activity against nematode plant diseases

Soybean cyst nematode (SCN), *Heterodera glycines*
Tomato root knot nematode (RKN), *Meloidogyne incognita*

Silty loam soil in individual pots with 1-week-old tomato transplants (cultivar Bonny Best) and soybean transplants (cultivar Hutcheson) were drenched with the test solution of the active ingredient. Aqueous suspensions of J2 nematode larvae and Meloidogyne incognita in the case of tomatoes and *Heterodera glycines* in the case of soybeans were drenched on the soil surface. Plants were kept one day in a moist infection chamber at 26°C then moved into the greenhouse and maintained with bottom watering until harvested for evaluation. The tests were replicated 3 times for each disease.

In the case of root knot nematode on tomatoes, plants were harvested two weeks after treatment and inoculation. Roots were washed free of soil and the number of root knot galls on each root system was visually examined and compared for treated and plants that were only treated with the acetone / Tween 20 carrier.

In the case of soybean cyst nematode on soybeans, plants were harvested four weeks after treatment and inoculation. Roots were washed free of soil and the number of cysts per root-mass was visually examined and compared for treated and plants that were only treated with the acetone / Tween 20 carrier.

In this test, tomato plants which had been treated with 0.6 kg/ha of the compounds I.2-11, I.2-29, I.2-31, I.2.-32, I.2-33, I.2-37, I.3.-2, I.3.-4, I.3-7 and I.3-11 showed a reduction in root knot galling of 100% compared to plants treated with the acetone/Tween 20 carrier.

Activity against insects and arachnids

Spodoptera eridania, 2nd instar larvae, southern armyworm (SAW)

Leaves of two lima bean plants contained in pots at BBCH stage 11 were dipped in the test solution, allowed to dry and then placed in plastic bags with holes punched for ventilation. Ten 2nd instar larvae were introduced. After 4 days, mortality, reduced feeding, or any interference with normal growth was examined visually.

Diabrotica virgifera virgifera Leconte, 2nd instar western corn rootworm (WCR)

1 ml of the test solution was pipetted onto 1 ccm^3 of talc in a 30 ml screw-top glass jar so as to provide 1.25 mg of active ingredient per jar (corresponding to about 50 kg/ha). The dried talc was loosened, and 1 ccm^3 of millet seed as food for the insects and 25 ml of moist soil were added to each jar and the contents were mixed mechanically. 10 2nd instar rootworms were added to each jar and the jars are loosely capped to allow air exchange for the larvae. The treatments were held for 5 days when mortality counts were made. Missing larvae were presumed dead, since they decompose rapidly and cannot be found.

Tetranychus urticae (OP-resistant strain), 2-spotted spider mite (TSM)

Sieva lima bean plants with primary leaves expanded to 7-8 cm were infested by placing on each a small piece from an infested leaf (with about 100 mites) taken from the main colony. This was done at about 2 hours before treatment to allow the mites to move over to the test plant to lay eggs. The piece of leaf used to transfer the mites was removed. The newly-infested plants were

dipped in the test solution and allowed to dry. After 2 days, one leaf is removed and mortality counts are made.

Aphis gossypii, cotton aphid (CA)

Cotton plants at the cotyledon stage (one plant per pot) were infested by placing a heavily infested leaf from the main colony on top of each cotyledon. The aphids were allowed to transfer to the host plant overnight, and the leaf used to transfer the aphids was removed. The cotyledons were dipped in the test solution and allowed to dry. After 5 days, mortality counts were made.

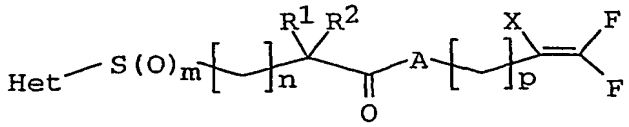
Spodoptera eridania, eggs-southern armyworm and Diabrotica undecimpunctata howardi, eggs-southern corn rootworm (SAW-Eggs) and (SCR-Eggs)

Wells containing artificial diet were treated with the test solutions and dried. The appropriate insect eggs were then placed in the wells which were covered with vented covers. After 7 days, mortality counts were made.

In this test, *Tetranychus urticae* which had been treated with 100 ppm of compound I.2-6 showed a kill rate of over 75% whereas untreated pests showed a rate of 0%.

Claims:

1. Fluoroalkene derivatives of formula I



(I)

wherein the substituents and the indices have the following meanings:

A oxygen or NR^a;

R^a hydrogen; C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, wherein the carbon atoms may be partially or fully halogenated;

X hydrogen, halogen; C_1-C_6-alkyl or phenyl wherein the alkyl and phenyl groups may be partially or fully halogenated;

R^1,R^2 each independently hydrogen, halogen, hydroxyl, cyano, nitro, mercapto, amino; C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_1-C_6-alkylthio, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyloxy, wherein the aliphatic moieties in these substituents are unsubstituted, partially or fully halogenated or substituted by 1 to 3 substituents, each independently selected from R^b:

R^b cyano, nitro, halogen, hydroxy, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl, alkyl, haloalkyl, alkenyl, alkenyloxy, alkynyl, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkoxysulfonyl, alkylsulfonyloxy, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl, dialkylaminothiocarbonyl, alkylenedioxy or cycloalkyl, wherein the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals contain 2 to 6 carbon atoms, and wherein the carbon atoms in these groups may be partially or fully halogenated;

Het a monocyclic or bicyclic 3- to 10-membered heteroaromatic ring system containing 1 to 5 heteroatoms selected from oxygen, sulfur and nitrogen, unsubstituted, partially or

fully halogenated or substituted by 1 to 4 substituents, each independently selected from R^c:

R^c R^b, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkylsulfinyl, C_1-C_6-alkylaminosulfonyl, di-C_1-C_6-alkylaminosulfonyl, C_1-C_6-alkylcarbonylamino, wherein the last mentioned 5 carbon chains and those defined under R^b are unsubstituted, partially or fully halogenated or substituted by from 1 to 3 cyano, hydroxy, mercapto, amino, C_1-C_6-alkylthio, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyloxy or nitro groups;

cycloalkyl, cycloalkoxy, saturated or partially unsaturated heterocyclyl, heterocyclyloxy, wherein the cyclic systems contain 3 to 10 ring members, and the carbon atoms in the heterocycles may be substituted by 1 to 4 heteroatoms selected from nitrogen, sulfur and oxygen,

aryl, aryloxy, arylthio, aryl-C_1-C_6-alkoxy, aryl-C_1-C_6-alkyl, wherein the mono- or bicyclic ring systems contain 5 to 10 ring members,

hetaryl, hetaryloxy, hetarylthio, wherein the mono- or bicyclic ring systems contain 5 to 10 ring members wherein 1 to 3 carbon atoms may be substituted by heteroatoms selected from nitrogen, sulfur and oxygen,

and wherein the cyclic, aromatic and heteroaromatic systems may be partially or fully halogenated or may be substituted by from 1 to 3 groups selected from halogen, cyano, nitro, hydroxy; C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, C_1-C_6-alkylamino, C_1-C_6-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, di-C_1-C_6-alkylamino, C_2-C_6-alkenyl, C_2-C_6-alkenyloxy and C_2-C_6-alkynyl, wherein the carbon atoms of these substituents may be partially or fully halogenated;

m 0, 1 or 2;
n 0, 1, 2, or 3;
p 0, 1, 2, 3, 4, 5, or 6.

2. Fluoroalkene derivatives of formula I according to claim 1 wherein the substituents and the indices have the following meanings:

A oxygen or NH;

R^1, R^2 each independently hydrogen, halogen; C_1-C_6-alkyl or phenyl wherein the alkyl and phenyl groups are unsubstituted, partially or fully halogenated.

3. Fluoroalkene derivatives of formula I according to claims 1 or 2 wherein A is oxygen.

4. Fluoroalkene derivatives of formula I according to claims 1 to 3 wherein X is hydrogen or fluorine.

5. Fluoroalkene derivatives of formula I according to claims 1 to 4 wherein X is fluorine.

6. Fluoroalkene derivatives of formula I according to claims 1 to 5 wherein R^1 and R^2 are each independently hydrogen, halogen, C_1-C_6-alkyl, or phenyl, which is unsubstituted, partially or fully halogenated.

7. Fluoroalkene derivatives of formula I according to claims 1 to 6 wherein Het is

5-membered hetaryl containing besides carbon atoms 1 to 3 nitrogen atoms and/or 1 sulfur or oxygen atom, unsubstituted or substituted by 1 or 2 R^c groups, wherein

R^c is cyano, nitro, halogen, hydroxy, mercapto, amino, carboxyl, aminocarbonyl, alkyl, haloalkyl, alkoxyalky, alkenyl, alkenyloxy, alkynyl, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, or dialkylaminocarbonyl, wherein the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals contain 2 to 6 carbon atoms, and wherein the carbon atoms in these groups may be partially or fully halogenated, or 5- to 10-membered mono- or bicyclic aryl, or 5- to 10-membered mono-or bicyclic hetaryl, wherein 1 to 3 carbon atoms may be substituted by heteroatoms selected from nitrogen, sulfur and oxygen, wherein the aryl or hetaryl ring systems may be partially or fully halogenated or may be substituted by 1 to 3 groups

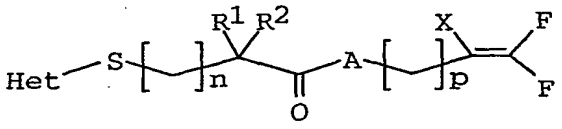
selected from halogen, cyano, nitro, hydroxy, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, or C_1-C_6-haloalkoxy; or

5-membered hetaryl containing besides carbon atoms 1 to 3 nitrogen atoms and/or 1 sulfur or oxygen atom wherein 2 adjacent ring members are bridged by a buta-1,3-dien-1,4-diyl group, wherein 1 or 2 carbon atoms may be substituted by nitrogen atoms, unsubstituted or substituted by 1 or 2 R^c groups, wherein

R^c is cyano, nitro, hydroxy, amino, alkyl, haloalkyl, alkoxyalkyl, alkenyl, alkenyloxy, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, or alkylcarbonylamino, wherein the alkyl groups in these radicals contain 1 to 6 carbon atoms and the alkenyl groups in these radicals contain 2 to 6 carbon atoms and wherein the carbon atoms in these groups may be partially or fully halogenated.

8. Fluoroalkene derivatives of formula I according to claims 1 to 7 wherein m is an integer of 0 or 2, n is an integer of 0 and p is an integer of 2 or 4.

9. A process for the preparation of fluoroalkene derivatives of formula I.1,

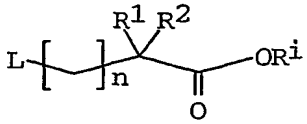


(I.1)

wherein A, X, R^1, R^2, Het, n and p are as defined in claim 1, characterized in that compounds of formula II

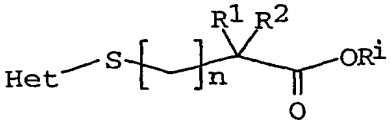
Het-SH (II)

wherein Het is as defined in claim 1, are reacted with compounds of formula III



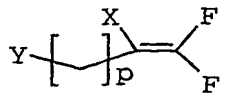
(III)

wherein R^1, R^2 and n are as defined in claim 1, L is a nucleophilic exchangeable leaving group, and R^i is hydrogen, C_1-C_6-alkyl or benzyl, in the presence of a base to give compounds of formula IV,



(IV)

wherein, if R^i is C_1-C_6-alkyl or benzyl, compounds IV are hydrolized to compounds IV wherein R^i is hydrogen, and compounds of formula IV wherein R^i is hydrogen are reacted with compounds of formula V,



(V)

wherein X and p are as defined in claim 1 and Y is a nucleophilically exchangeable leaving group or a group NHR^a, wherein R^a is as defined in claim 1, in the presence of an acid, a base, or an activating agent.

10. A method for the control of nematodes, insects or arachnids which comprises contacting said pests or their food supply, habitat or breeding ground with a pesticidally effective amount of a compound of formula I as defined in claims 1 to 8.

11. A method for the protection of plants from infestation or attack by nematodes, insects or arachnids which comprises applying to the plants or to the soil or the water in which they are growing a pesticidally effective amount of a compound of formula I as defined in claims 1 to 8.

12. A method for the control of harmful fungi which comprises treating the fungi or the materials, plants, the soil or the seed to be protected against fungal attack with an effective amount of a compound of the formula I as defined in claims 1 to 8.

13. A method for the control of unwanted plants which comprises treating these plants or their habitat with an effective amount of a compound of the formula I as defined in claims 1 to 8.

14. A method for treating, controlling, preventing or protecting warm-blooded animals or fish against infestation or infection by helminths, arachnids or arthrop endo- or ectoparasites which comprises orally, topically or parenterally administering or applying to said animal or fish a parasiticidally effective amount of a compound of formula I as defined in claims 1 to 8.

15. A method for the preparation of a composition for treating, controlling, preventing or protecting warm-blooded animals or fish against infestation or infection by helminths, arachnids

or arthrop endo- or ectoparasites which comprises a compound of formula I as defined in claims 1 to 8.

16. A composition for the control of nematodes, insects, arachnids, harmful fungi, unwanted plants, helminths, or arthrop endo- or ectoparasites which comprises an agronomically acceptable and/or physiologically tolerable carrier and a compound of formula I as defined in claims 1 to 8.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/08397

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07D263/52 C07D277/70 C07D498/04 C07D513/04 C07D263/46
C07D277/36 C07D233/84 C07D271/10 C07D285/125
//(C07D498/04,263:00,221:00),(C07D513/04,277:00,221:00)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 86 07590 A (FMC CORP) 31 December 1986 (1986-12-31) cited in the application claims 1,18,34,50; example 23	1-16
Y	WO 97 08130 A (BAYER AG ;MONSANTO CO (US); KRAATZ UDO (DE); ANDERSCH WOLFRAM (DE)) 6 March 1997 (1997-03-06) cited in the application claims 1,6-10	1-16
Y	EP 1 000 946 A (AMERICAN CYANAMID CO) 17 May 2000 (2000-05-17) cited in the application claims 1,3,5; examples 4-6	1-16

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 December 2003	30/12/2003

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	vanVoorsttotVoorst,M

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 38 16 807 A (SCHERING AG) 23 November 1989 (1989-11-23) claims 1,3-5; examples 3,5	1-16
Y	DE 38 24 879 A (SCHERING AG) 15 February 1990 (1990-02-15) claims 1-5	1-16
Y	GB 2 294 928 A (BAYER AG) 15 May 1996 (1996-05-15) claims 1,5-8	1-16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/08397

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 10,12,14
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 10, 12 and 14 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [ ] Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/[redacted] 03/08397

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 8607590	A	31-12-1986	AU	601656 B2	13-09-1990
			AU	6122986 A	13-01-1987
			BR	8606746 A	13-10-1987
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